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Loran C TSO Data Base

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June 1988

DOT/FAA/CT-TN88/1

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16. Abstract

This report lists a data base for bench simulation testing aviation Loran C receivers for en route and terminal position accuracy. A set of data points was selected from Loran C stability flight tests conducted over the continental U.S. in 1984-1985 at 400 locations, 100 points in each of four Loran C chains. It may someday be used as a substitute for some of the flight testing required in an Advisory Circular (AC) or Technical Standard Order (TSO) to obtain a Supplemental Type Certificate (STC) for Loran C equipment for en route and terminal aircraft operations. The report also discusses the procedures used to collect and select the data base.

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receivers for en route and terminal position accuracy. A set of data points was
selected from Loran C stability flight tests conducted over the continental
United States in 1984-1985 at 400 locations, 100 points in each of the four
Loran C chains in the continental United States (CONUS). It may someday be used
as a substitute for some of the flight testing required in an Advisory Circular
(AC) or Technical Standard Order (TSO) to obtain a Supplemental Type Certificate
(STC) for Loran C equipment for en route and terminal aircraft operations. The
report also discusses the procedures used to collect and select the data base.

The data base does not comply with all of the guidelines given in AC 20-121 (see
Related Documentation No. 1). The advisory circular specifies that half of the
data base locations should be collected near the edges of the Loran C chain
coverage area. This is not the case of the data base listed in this report.
Since it was the only data base available, it is recommended that more data be
collected near the edges of coverage and included in a new data base.

INTRODUCTION

OBJECTIVE.

The purpose of this report is to provide a standard data base to be used in
testing Loran C equipment. This testing may eventually be incorporated in an
Advisory Circular (AC) or Technical Standard Order (TSO) as part of the process
of obtaining a Supplemental Type Certificate (STC) for Loran C receivers
certified for en route and terminal aircraft operations. The data base might be
used in bench simulation tests in place of some of the flight testing required by
Federal Aviation Administration (FAA) AC 20-121 (see Related Documentation
No. 1).

BACKGROUND.

AC 20-121 contains the specifications for certification of airborne Loran C
systems to be used for instrument flight rules (IFR) operations. This advisory
circular states that to demonstrate system accuracy the Loran C equipment
position must be recorded and compared to the actual position of at least 100
locations uniformly distributed within the Loran C operational area (LOA) of each
chain for which the applicant wants approval. These measurements must be
recorded in flight by a very high frequency omnidirectional range/tactical air
navigation (VORTAC) overflight at low altitude (less than 3000 feet above ground
level (AGL)), a visual siting of a known ground reference point, or comparison
with a good dual distance measurement equipment (DME) fix. Fifty of the accuracy
measurements should be located at or near the extremes of each defined LOA.

For a Loran C receiver to be certified for approval to fly under IFR conditions
anywhere in the continental United States (CONUS), a manufacturer would be
required to compare actual and receiver measured positions of at least
400 points, 100 from each of the four continental chains. The addition of four
new Loran C transmitters filling the mid-continent gap in 1990 would create two
new chains. This will require additional measurements.

Loran C manufacturers have expressed their opinion that it is expensive to
collect airborne data, which might not be affordable for small companies and
could restrict some receivers to visual flight rules (VFR) approval only.
The project described in this report was created to provide an alternative to
extensive flight testing. Bench simulation tests of the receiver could be
substituted for most of the flight testing. Specific simulation locations and
signal characteristics pertaining to those locations are given for each chain.
The manufacturers may demonstrate their receivers acquire and display the correct
position for the time differences (TD's), field strengths, and noise input from
the simulator.

This report describes in detail the steps taken to select the data base.

RELATED DOCUMENTATION.

1. Airworthiness Approval of Airborne Loran-C Systems for Use in the United
States (U.S.) National Airspace System (NAS) and in U.S. Offshore Regions, U.S.

1

Department of Transportation, Federal Aviation Administration, Advisory Circular 20-121.

2. Specifications of the Transmitted Loran C Signal, U.S. Coast Guard Publication, COMDTINST M165624, July 1981.

3. Fox, Daniel P., Loran C Spring Stability Data Report, FAA Technical Center, Technical Note DOT/FAA/CT-TN85/32, October 1985.

4. Naimo, Matthew, Aircraft Tracking and Data Systems (ATADS) En Route Accuracy, FAA Technical Center, Letter Report CT-82-100-75LR.

5. Minimum Operational Performance Standards for Airborne Area Navigation Equipment Using Loran-C Inputs, Radio Technical Commission for Aeronautics, Document No. RTCA/DO-194, November 17, 1986.

6. Sherman, H. T., Finally -- A Practical ECD Estimating Technique, The Wild Goose Association, Proceedings of the Thirteenth Annual Technical Symposium, 31 October - 2 November 1984, Boston.

TEST EQUIPMENT

Simulation tests were conducted using the Advanced Navigation Incorporated ANI-2500 Loran C simulator. This signal generator is a state of the art test device that provides a stable reference based on Loran C signals for a wide variety of static and dynamic test conditions. Each setup allows the selection of master and secondaries with individually set signal levels and envelope-to-cycle discrepancy (ECD). Noise levels may also be selected.

Table 1 lists the components of the ANI 2500. There are two major subassemblies: a Loran C simulator unit and the IBM computer. Both units have displays and are interfaced by an RS-232 data bus.

The model 2044 Loran C simulator can simulate four chains with up to six secondary stations per chain along with ground wave and skywave component signals.

The Loran C signal structure is in conformance with the U.S. Coast Guard (USCG) publication "Specifications of the Transmitted Loran C Signal" (see Related Documentation No. 2). Individual adjustment is provided for noise, station field strength, and ECD. Continuous wave interference (CWI) is provided by two Rockland synthesizers operable over a range of 0 to 3 megahertz (MHz). Gaussian and atmospheric noise simulation is internally provided.

TABLE 1. LORAN C GENERATOR - ANI MODEL 2500 COMPONENTS

Rockland Synthesizer Model/5110-06   (2 MHz)
Rockland Synthesizer Model/5110-06-13 (3 MHz)
Model 2044 Loran C Simulator
IBM Cathode Ray Tube (CRT)
IBM Personal Computer
Printer
Joy Stick

TEST PROCEDURES

SELECTING DATA BASE POINTS.

The set of data base points selected were collected during actual flights within
the CONUS (see Related Documentation No. 3). This enabled the reference data
base to account for all physical conditions not normally considered in a
simulation environment.

The system used to determine the aircraft reference position location was the
Aircraft Tracking and Data System (ATADS). ATADS en route accuracy using
standard International Civil Aviation Organization (ICAO) beacons was determined
to be 475 feet, 2 distance root mean squared (drms) (see Related Documentation
No. 4). AC 20-121 (see Related Documentation No. 1) defines the minimum accuarcy
specifications for Loran C system. For approval of en route IFR operations on
airways, the error of the airborne Loran C equipment should be less than
$\pm$2.8 nautical miles (nmi) of both crosstrack and along-track error on a
95 percent probability basis. For IFR terminal area operations on standard
terminal arrivals (STAR's), or standard instrument departures (SID's), and
transitions, the same errors should be less than $\pm$1.7 nmi. ATADS, while not a
navigation system, meets these requirements with much greater accuracy.

Positional data and signal parameters were recorded from two ANI 7000 Loran C
receivers on an FAA Convair 580 aircraft while flying seasonal stability flight
tests. These flights were conducted at an altitude of approximately 17,000 feet.
Data from the spring flights were used in selecting the data base points because
the effects from noise and seasonal variation are midway between the extreme
values encountered in winter and summer. The receivers were operated in the wide
open mode.

The thin solid lines in figure 1 show the route of flight flown during the
spring stability flight tests. A USCG triad coverage plot for the 9960
Northeast U.S. chain is overlaid on the plot within the thick solid lines.
Locations within three 9960 triads (stations MWX, MXY, and MYZ) which were on
the route were selected. Locations from the MWY and MXZ triads were not
selected since the route of flight did not fall in those triads. The route of
flight did fall within the MWZ triad but those locations were not selected as
some of the SNR readings for the stations involved were below -10 decibels (dB).
At other times, while flying through the MWZ triad, readings from station W were
not recorded as the ANI 7000 receiver selected other chains and stations.

3
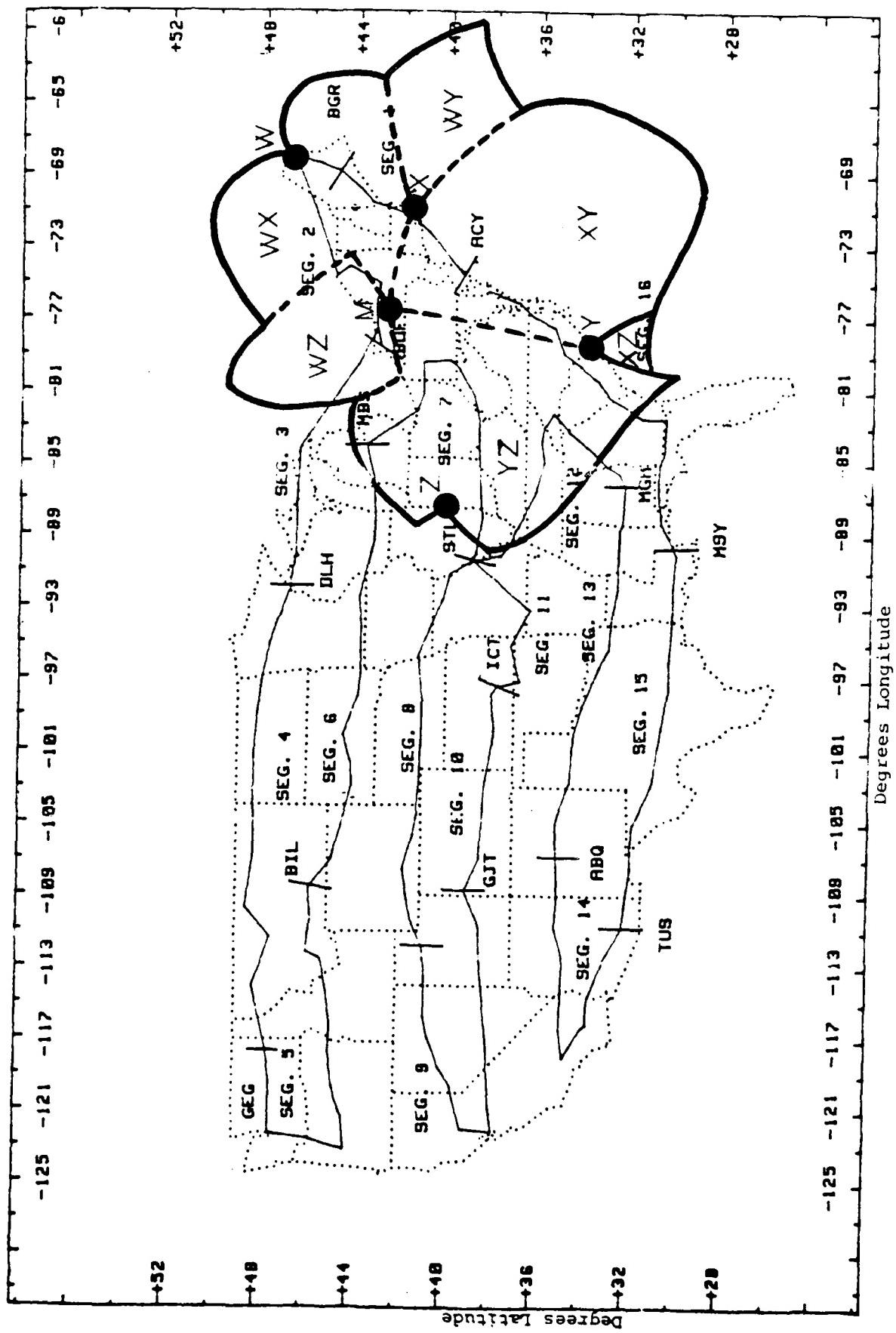
FIGURE 1. ROUTE OF FLIGHT AND TRIAD COVERAGE PLOT FOR 9960 CHAIN

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Other criteria used for selecting the test locations were:

1. Test for valid data - the time difference bias (the difference between the measured TD and the salt water computed TD) was less than 5 microseconds to insure a cycle slip measurement was not included in the data.

2. Geometric dilution of precision (GDOP) was less than 7500 feet per microsecond. The largest GDOP for the data presented was 5937 feet per microsecond.

3. The radial position error obtained from the comparison of the ATADS and ANI 7000 receiver was less than 1.7 nmi for any data point selected, since that is the criteria for crosstrack and along-track airborne equipment error given in AC 20-121.

One hundred locations were selected from the 9960 chain on a random basis according to the length of the route flown through each of the triads used in that chain.

Similarily, 100 locations from triads in each of the other CONUS chains, 7980, 8970, and 9940, were selected. Figures 2 through 4 show coverage plots for these chains. Data from the MXY triad of the 7980 chain were not available since the flight tests were not conducted within that triad. Points from all other triads of the 7980, 8970, and 9940 chains were selected. ATADS reference position and validation data of the 400 locations are listed in appendix A. The data associated with each of these locations to be used for simulation testing of Loran C receivers are listed in appendix B. Appendix C contains flight data associated with all stations recorded from ANI 7000 receiver number 1. The data in appendix C could be used for testing cross chain receivers.

SIMULATION TESTING.

Flight data were collected from ANI 7000 Loran C receivers and compared against the ATADS and receiver position. Simulation testing was done on another manufacturer's receiver. The intent of the simulation tests was to check the data using a typical Minimum Operational Performance Standards (MOPS) (see Related Documentation No. 5) receiver using a single chain. The II Morrow model 612A was used to test the 400 points selected from the flight data. The ANI 2500 simulator used for generating the Loran C signals was described in the section entitled "Testing Equipment."

For each data base point, data from appendix B were input into the simulator. This included atmospheric noise, field strength, and ECD of each station in the triad, and TD's for the two secondary stations in the triad. The latitude and longitude coordinates displayed on the II Morrow receiver, and the corresponding TD, SNR, field strength, and ECD values for that location were noted. As long as the simulation receiver's radial errors were less than 1.7 nmi from the ATADS position, the point was considered valid for the list in appendix A. This final selection of data points was done to eliminate test locations that would only be satisfactory with a cross chain receiver.
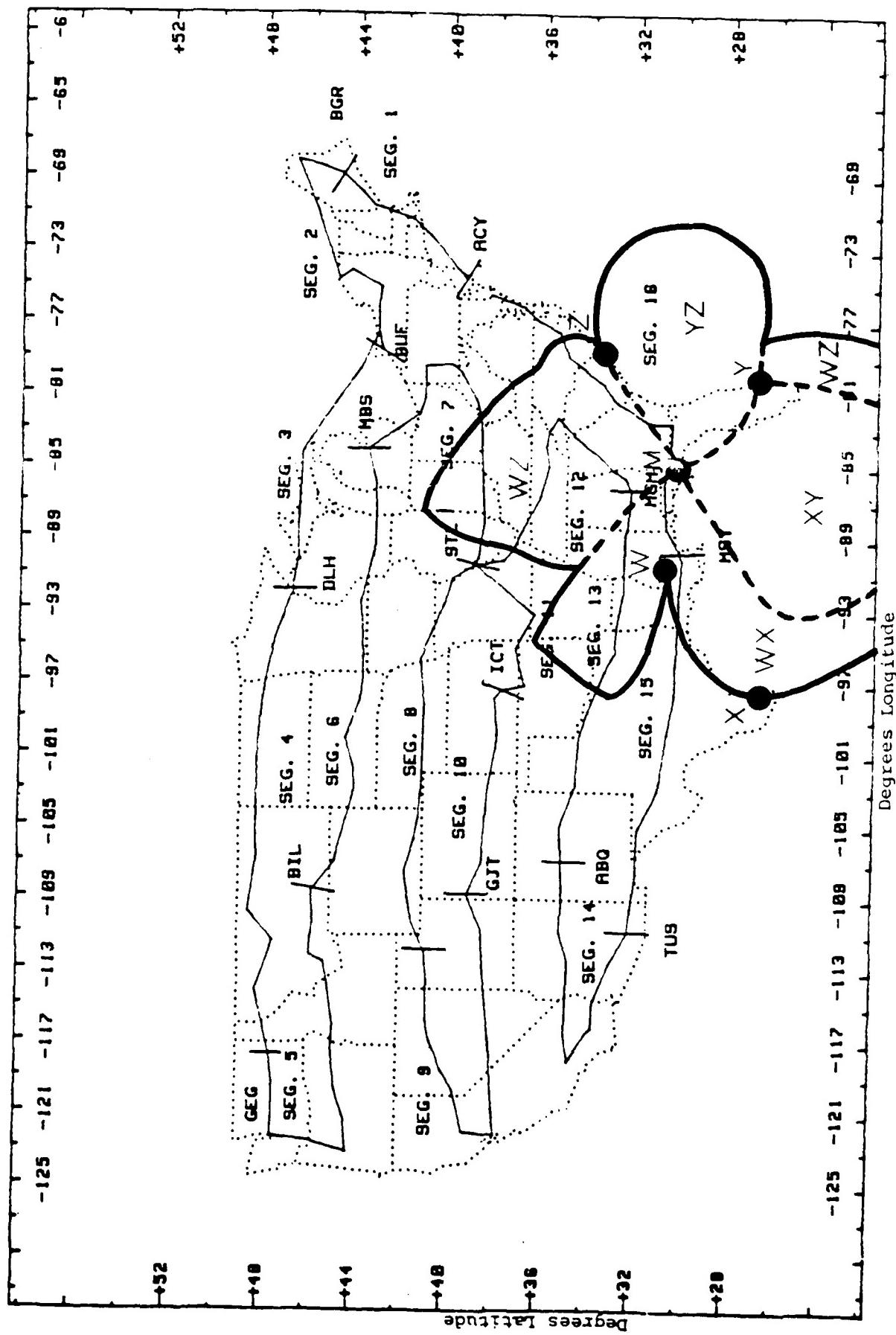
FIGURE 2. ROUTE OF FLIGHT AND TRIAD COVERAGE PLOT FOR 7980 CHAIN

FIGURE 3. ROUTE OF FLIGHT AND TRAID COVERAGE PLOT FOR 8970 CHAIN

Degrees Longitude

Degrees Latitude
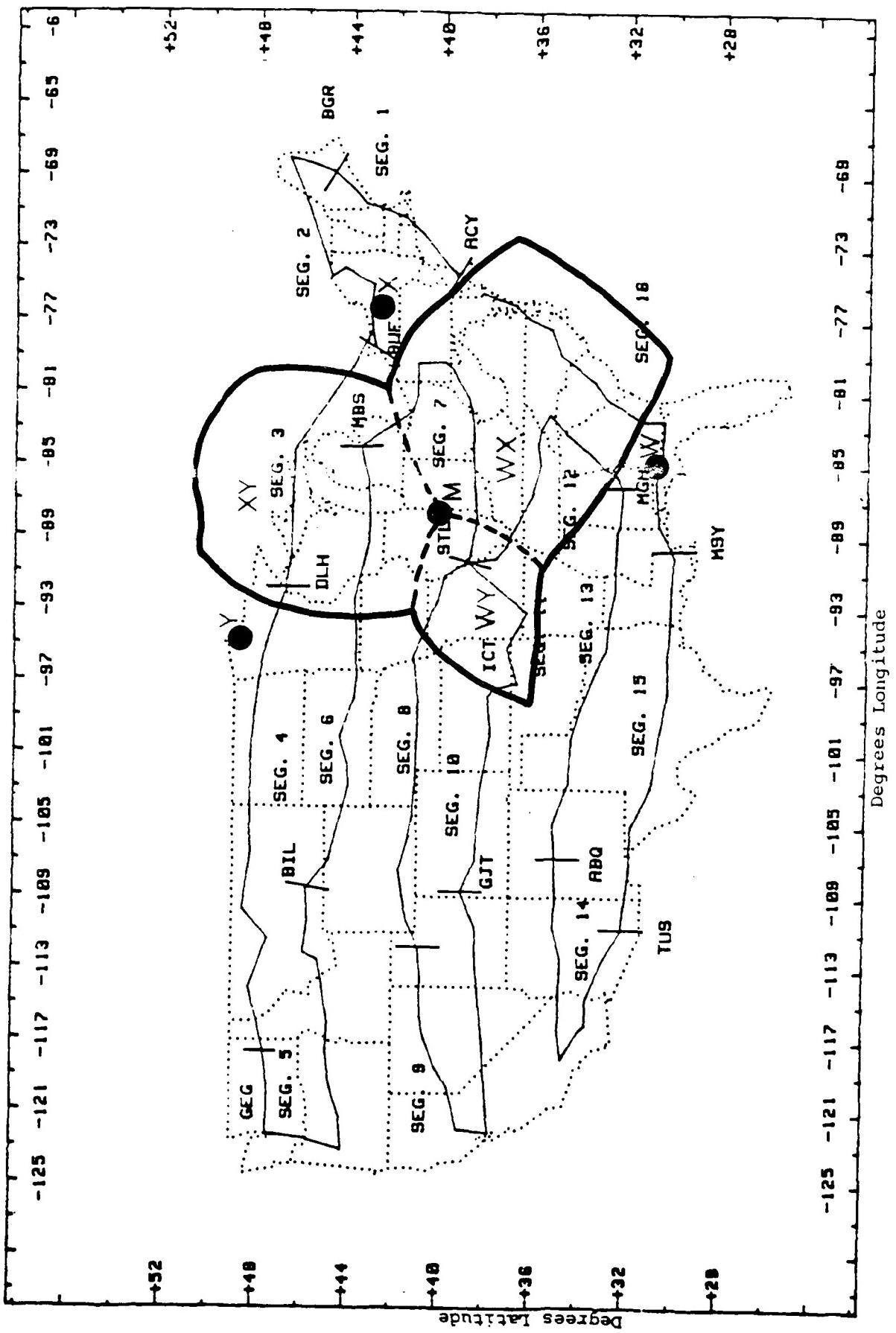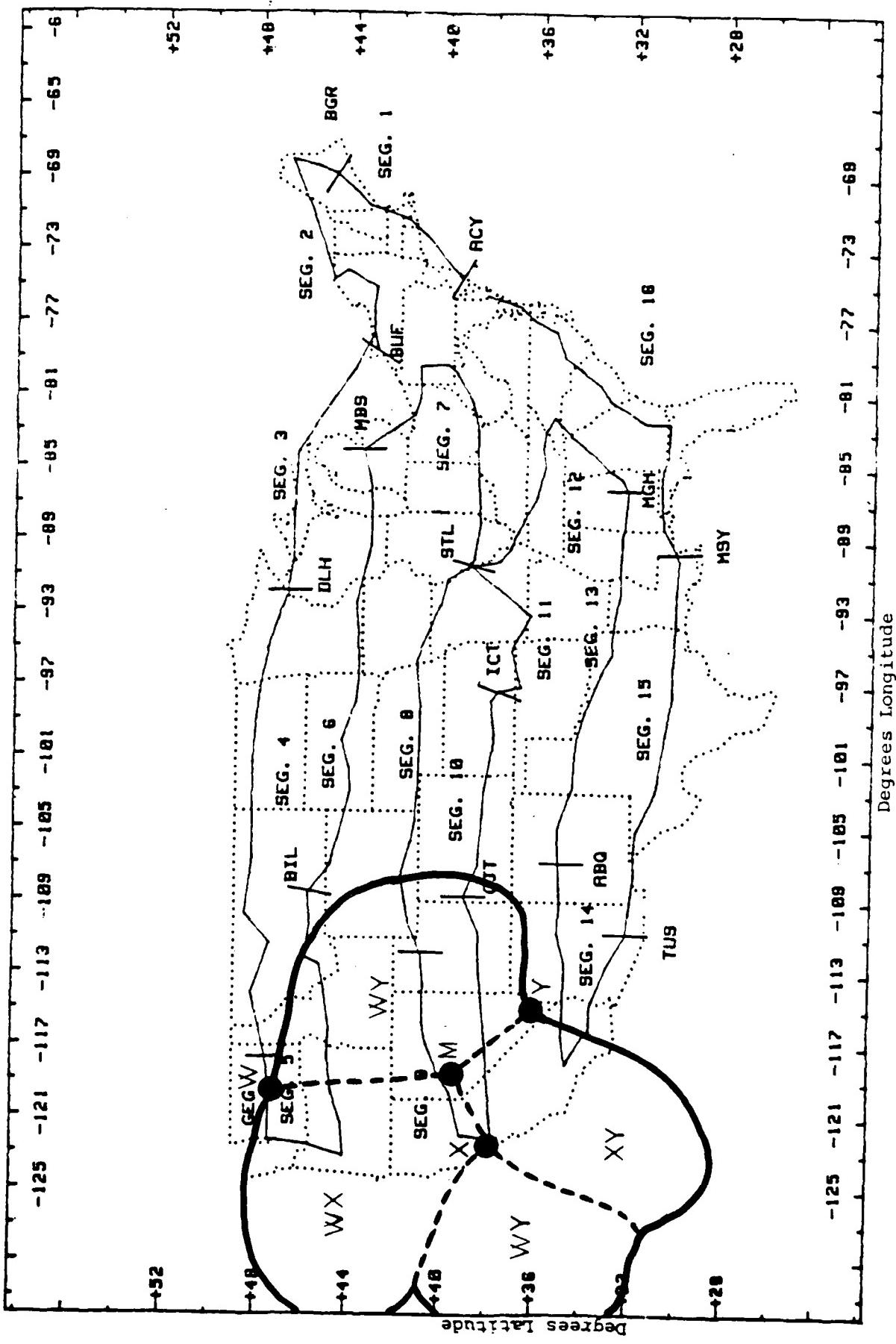
FIGURE 4. ROUTE OF FLIGHT AND TRIAD COVERAGE PLOT FOR 9940 CHAIN

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ANALYSIS.

Table 2 contains the radial error statistics for each of the four CONUS chains. The mean and standard deviation of position errors of 100 points in each chain are listed for both the ANI and the II Morrow receivers. Note the errors were measured over a large geographical area and may be different than if confined to an area with one kind of terrain. The ANI position errors were measured from flight test data, while the II Morrow position errors were obtained from simulation data. The reference TD's were measured in flight test using the ATADS reference position. This could introduce dynamic errors. All errors were less than the mean plus 2 sigma criteria of 1.7 nmi.

Figures 5 and 6 show the distribution of Loran C receiver radial position errors for the ANI 7000 and II Morrow 612A receivers, respectively. Note that the ANI results were obtained when the ANI was in the wide-open mode, capable of determining position from up to eight stations' data. The II Morrow receiver results were obtained when that receiver was in the dedicated triad mode -- only three stations used for position determination.

TABLE 2. DATA BASE RADIAL ERROR STATISTICS

Chain GRI	7000 Mean nmi	7000 Std Dev nmi	612A Mean nmi	612A Std Dev nmi
7980	0.48410	0.13173	0.69540	0.27772
8970	0.46250	0.13099	0.72100	0.38622
9940	0.48940	0.13169	0.54150	0.27286
9960	0.48020	0.11534	0.72750	0.30287

Notes:
7000 = ANI Model 7000 Loran C Receiver
612A = II Morrow Model 612A Loran C Receiver
Std Dev = standard deviation (1 sigma)
Error is difference between receiver position and ATADS position

While running simulation tests certain problems were encountered. Many of the original points selected from the 7980 chain proved to be unusable because the simulation receiver position failed to meet the radial error criteria. After analyzing the location of the points in error, it was found that the areas in question had a high GDOP, were near the baseline extension, or were near the fringe of coverage. New points were selected from other areas in the 7980 chain to replace the unusable ones.

The USCG defines the ECD at the transmitters as the time relationship between the phase of the radio frequency (RF) carrier and the time origin of the envelope wave form. According to the MOPS (see Related Documentation No. 5), Loran C

DISTRIBUTION OF ANI 7000 LORAN C RECEIVER
RADIAL POSITION ERRORS (100 PER CHAIN)

CHAINS
7980
8970
9940
9960

OCCURRENCES

NAUTICAL MILES
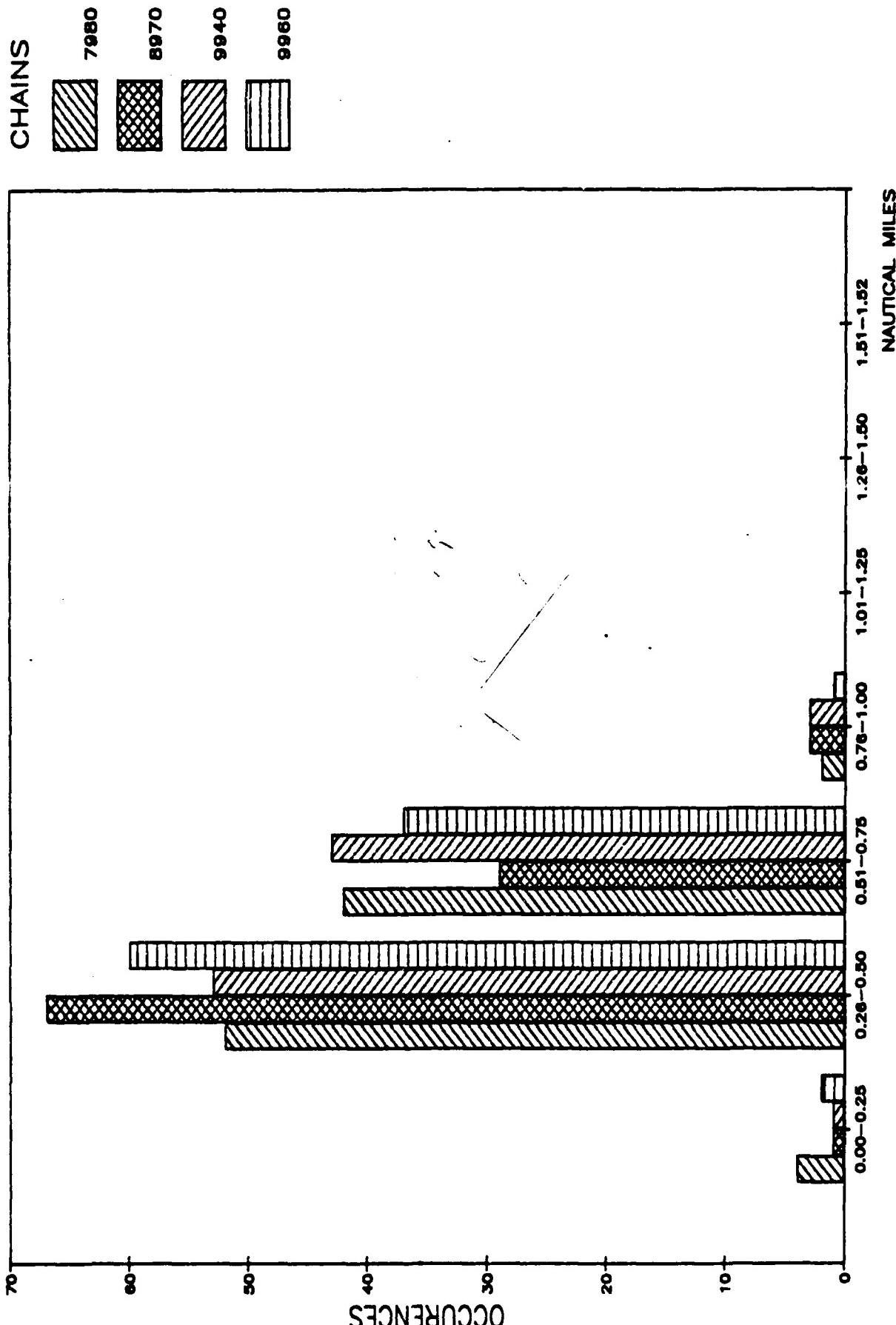
FIGURE 5. DISTRIBUTION OF ANI 7000 LORAN C RECEIVER RADIAL POSITION ERRORS

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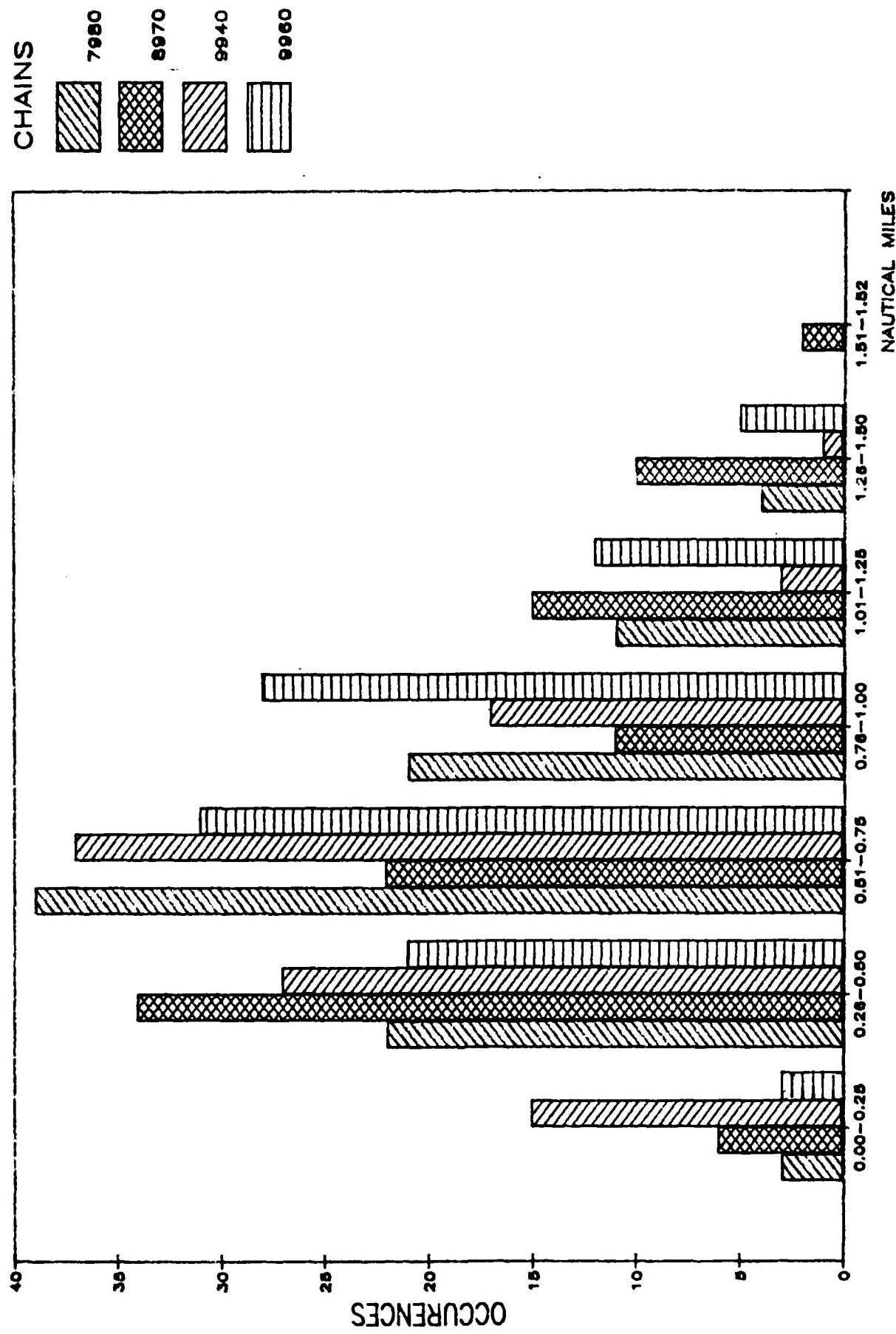
FIGURE 6.   DISTRIBUTION OF II MORROW 612A LORAN C RECEIVER RADIAL POSITION ERRORS

receivers should be able to properly acquire and track signals with an ECD of -2.4 to +3.0 microseconds at SNR's above -6 dB.

The ECD measurements obtained from the ANI 7000 receiver were determined from simulator tests to have an uncertainty of between +0.3 to +0.6 microseconds under static conditions (zero velocity). The measured ECD's at some locations in the CONUS were in excess of 3 microseconds. This may restrict operation in areas with high ECD's unless some integrity check is implemented.

During simulation tests it is possible to verify that the receiver is on the proper cycle. This should be done to insure that ECD values do not affect test results since the test procedure involves repeated acquisition of signals. The ECD measurements listed in appendix B were used to test the II Morrow receiver only to stress the receiver in the acquisition mode.

The data base given in the appendixes does not comply with all of the guidelines suggested in AC 20-121. However, it was the only data base available. The AC suggests flight data be recorded either by a VORTAC overflight at low altitude (less than 3000 feet AGL) or by a visual sighting of a known ground reference point. The radial distance between the known position and the flight recorded position should be within the appropriate accuracy criteria specified in AC 20-121 (2.8 nmi for en route and 1.7 nmi for terminal). Each location specified in the data base in this report meets the accuracy criteria when compared to ATADS position. ATADS as a reference system was determined to have an accuracy of 475 feet, 2 drms, which is much less than the en route and terminal criteria of AC 20-121.

However, both AC 20-121 and MOPS specify that points should be collected over the entire area for which coverage is to be approved, and half the points should be collected near the edges of the coverage area. Of the data base points listed in the appendixes, only 13 points from the 7980 chain were near the edges of coverage. There were 21 points from the 8970 chain, 20 points from the 9940 chain, and only 3 points from the 9960 chain that were near the edges of coverage.

Since data from another project was used, data were not available near the edges of coverage. The flight test aircraft was flown back and forth across the country, flying through the chains, not around them. Therefore, only a small percentage of the locations in the data base were near the edges of coverage, not half of them. Also, not every possible triad of the four chains were accounted for, nor were areas in the Atlantic Ocean, Pacific Ocean, or Gulf of Mexico which are included in the USCG coverage plots for each Loran C chain. This lack of points in certain areas will be addressed in the "Recommendations" section.

Appendix A contains the recommended strawman dedicated triad accuracy testing data base locations and measured errors, sectioned by chain and by triad within a chain. Appendix B contains the Loran C parameter data associated with each of the locations in appendix A. The data in appendix B may someday be used as simulator input in place of some of the flight testing required. Appendix C contains flight data associated with all stations recorded from ANI 7000 receiver number 1. The ANI 7000 is capable of receiving from up to eight stations at a time. These data may be used for the simulation tests on cross chain receivers.

CONCLUSIONS

Substituting simulation data for some of the actual flight data required to certify a Loran C receiver for en route and terminal aircraft operations will not jeopardize reliability. The data obtained from the flight test produced position solutions that met the Advisory Circular (AC) 20-121 en route and terminal criteria for two different type receivers (a cross chain receiver using a complex propagation model for the position solution and a receiver operating in a dedicated triad mode using a simple propagation model for the position solution).

RECOMMENDATIONS

1. More data should be collected near the edges of coverages as well as through all triads in the chains of interest. This may be compiled into a new data base.

2. Manufacturers should be given the opportunity to review the data base listed in this report for their comments and consideration.

APPENDIX A

ACCURACY TESTING DATA BASE LOCATIONS

Data in this appendix include:

COLUMN	DESCRIPTION
1	Data base point number from 1 through 400
2	ATADS reference latitude in decimal degrees
3	ATADS reference longitude in decimal degrees
4	ANI 7000 flight receiver latitude in decimal degrees
5	ANI 7000 flight receiver longitude in decimal degrees
6	Difference in nautical miles between ANI 7000 and ATADS position
7	II Morrow 612A simulation receiver latitude in decimal degrees
8	II Morrow 612A simulation receiver longitude in decimal degrees
9	Difference in nautical miles between II Morrow and ATADS position

REFERENCE POSITION, FLIGHT RECEIVER POSITION, SIMULATION RECEIVER POSITION, AND
DIFFERENCES FROM REFERENCE POSITION FOR 7980 CHAIN, DATA BASE POINTS 1-50

DATA BASE POINT	REF LAT DEGREES	REF LON DEGREES	FLT RCV LAT DEGREES	FLT RCV LON DEGREES	DIFF. REF/FLT NMI	SIM RCV LAT DEGREES	SIM RCV LON DEGREES	DIFF. REF/SIM NMI
1.	32.368	90.297	32.367	90.291	0.32	32.368	90.294	0.16
2.	32.406	90.563	32.405	90.555	0.41	32.406	90.558	0.28
3.	32.408	90.632	32.408	90.623	0.44	32.409	90.626	0.33
4.	32.426	90.984	32.425	90.977	0.33	32.424	90.979	0.28
5.	32.451	91.277	32.450	91.270	0.36	32.448	91.271	0.35
6.	32.457	91.352	32.456	91.341	0.52	32.454	91.342	0.53
7.	32.489	91.725	32.489	91.719	0.28	32.481	91.714	0.72
8.	32.512	92.024	32.512	92.016	0.40	32.506	92.015	0.61
9.	32.522	92.098	32.521	92.088	0.52	32.514	92.087	0.74
10.	32.574	92.467	32.572	92.458	0.46	32.565	92.457	0.74
11.	32.612	92.763	32.611	92.755	0.41	32.603	92.753	0.72
12.	32.622	92.836	32.619	92.826	0.55	32.612	92.825	0.82
13.	32.672	93.208	32.670	93.196	0.63	32.661	93.194	0.95
14.	32.712	93.507	32.711	93.502	0.29	32.702	93.501	0.71
15.	32.722	93.583	32.721	93.573	0.51	32.712	93.572	0.84
16.	32.768	93.967	32.767	93.956	0.55	32.755	93.953	1.08
17.	32.795	94.306	32.794	94.298	0.42	32.781	94.292	1.11
18.	32.800	94.372	32.799	94.364	0.39	32.786	94.360	1.02
19.	32.828	94.770	32.827	94.755	0.76	32.813	94.749	1.41
20.	32.837	95.113	32.838	95.104	0.49	32.821	95.095	1.32
21.	32.836	95.181	32.836	95.173	0.43	32.818	95.164	1.39
22.	30.160	91.741	30.160	91.748	0.40	30.173	91.759	1.24
23.	30.162	91.664	30.162	91.675	0.57	30.175	91.685	1.31
24.	30.180	91.167	30.180	91.179	0.60	30.186	91.186	1.07
25.	30.161	90.802	30.162	90.815	0.69	30.164	90.821	0.98
26.	30.157	90.728	30.158	90.741	0.66	30.160	90.746	0.97
27.	30.139	90.296	30.140	90.303	0.40	30.142	90.308	0.63
28.	30.055	90.122	30.058	90.129	0.38	30.060	90.132	0.59
29.	30.010	90.065	30.012	90.067	0.17	30.015	90.070	0.39
30.	29.952	90.029	29.957	90.028	0.27	29.957	90.034	0.37
31.	30.073	89.586	30.068	89.592	0.40	30.068	89.598	0.68
32.	30.115	89.539	30.112	89.542	0.23	30.111	89.549	0.54
33.	30.294	89.200	30.288	89.213	0.74	30.284	89.218	1.12
34.	30.440	88.880	30.436	88.889	0.52	30.430	88.892	0.90
35.	30.470	88.815	30.467	88.822	0.39	30.459	88.827	0.88
36.	30.659	88.442	30.655	88.450	0.52	30.648	88.451	0.79
37.	30.728	88.092	30.726	38.106	0.71	30.721	88.109	0.99
38.	30.738	88.022	30.739	88.033	0.57	30.729	88.031	0.72
39.	30.785	87.585	30.783	87.598	0.66	30.774	87.597	0.91
40.	30.805	87.218	30.805	87.227	0.44	30.794	87.226	0.76
41.	30.798	87.146	30.798	87.153	0.38	30.789	87.150	0.61
42.	30.790	86.702	30.790	86.711	0.46	30.778	86.707	0.78
43.	30.825	86.329	30.824	86.341	0.60	30.810	86.337	0.98
44.	30.832	86.255	30.831	86.264	0.50	30.818	86.261	0.93
45.	36.295	87.337	36.297	87.349	0.54	36.290	87.348	0.61
46.	36.185	86.962	36.190	86.973	0.58	36.186	86.972	0.48
47.	36.174	86.894	36.175	86.905	0.51	36.170	86.904	0.54
48.	36.071	86.372	36.073	86.384	0.60	36.070	86.384	0.59
49.	35.982	85.914	35.983	85.924	0.52	35.982	85.925	0.51
50.	35.969	85.841	35.970	85.853	0.58	35.968	85.854	0.63

Triad MWX 1-44
Triad MWZ 45-50

REFERENCE POSITION, FLIGHT RECEIVER POSITION, SIMULATION RECEIVER POSITION, AND
DIFFERENCES FROM REFERENCE POSITION FOR 7980 CHAIN, DATA BASE POINTS 51-100

DATA BASE POINT	REF LAT DEGREES	REF LON DEGREES	FLT RCV LAT DEGREES	FLT RCV LON DEGREES	DIFF. REF/FLT NMI	SIM RCV LAT DEGREES	SIM RCV LON DEGREES	DIFF. REF/SIM NMI
51.	35.856	85.305	35.859	85.315	0.54	35.856	85.316	0.54
52.	35.798	84.770	35.796	84.785	0.72	35.788	84.784	0.91
53.	35.932	84.297	35.928	84.306	0.46	35.924	84.302	0.53
54.	35.964	84.228	35.959	84.238	0.56	35.954	84.233	0.65
55.	35.935	83.893	35.942	83.899	0.53	35.937	83.894	0.13
56.	35.830	83.366	35.834	83.380	0.74	35.826	83.374	0.46
57.	35.709	82.914	35.713	82.928	0.72	35.707	82.925	0.54
58.	35.690	82.848	35.694	82.863	0.78	35.688	82.859	0.54
59.	35.511	82.363	35.516	82.372	0.52	35.510	82.370	0.35
60.	34.779	83.162	34.783	83.156	0.38	34.781	83.148	0.72
61.	34.637	83.365	34.643	83.360	0.44	34.639	83.355	0.51
62.	34.588	83.417	34.592	83.411	0.39	34.588	83.407	0.50
63.	33.194	84.664	33.198	84.665	0.25	33.196	84.662	0.15
64.	32.969	84.810	32.976	84.806	0.45	32.973	84.804	0.39
65.	32.730	84.940	32.736	84.935	0.43	32.734	84.931	0.49
66.	32.674	84.978	32.682	84.973	0.55	32.678	84.971	0.45
67.	32.559	85.311	32.560	85.306	0.26	32.558	85.301	0.49
68.	32.465	85.690	32.467	85.680	0.52	32.464	85.678	0.63
69.	32.349	85.997	32.353	85.989	0.47	32.349	85.987	0.50
70.	32.322	86.057	32.325	86.050	0.44	32.322	86.047	0.51
71.	32.226	86.448	32.225	86.439	0.48	32.220	86.436	0.46
72.	32.258	86.868	32.258	86.859	0.46	32.252	86.856	0.70
73.	32.288	87.206	32.287	87.198	0.43	32.279	87.196	0.75
74.	32.293	87.273	32.292	87.264	0.46	32.284	87.262	0.76
75.	32.325	87.667	32.324	87.657	0.51	32.316	87.654	0.83
76.	32.354	88.059	32.353	88.050	0.46	32.343	88.043	1.07
77.	32.352	88.385	32.350	88.376	0.43	32.342	88.369	1.01
78.	32.361	88.450	32.359	88.436	0.69	32.350	88.431	1.17
79.	32.391	88.755	32.391	88.753	0.09	32.382	88.747	0.69
80.	32.406	89.142	32.404	89.134	0.40	32.395	89.130	0.90
81.	32.422	89.495	32.422	89.483	0.59	32.411	89.480	1.01
82.	32.426	89.572	32.424	89.564	0.41	32.414	89.558	0.99
83.	30.732	84.918	30.734	84.928	0.54	30.734	84.932	0.70
84.	30.690	84.744	30.693	84.757	0.68	30.692	84.760	0.85
85.	30.613	84.488	30.615	84.496	0.44	30.618	84.508	1.05
86.	30.549	84.041	30.550	84.050	0.47	30.549	84.054	0.65
87.	30.544	83.767	30.544	83.774	0.37	30.543	83.784	0.85
88.	30.540	83.584	30.541	83.594	0.52	30.540	83.597	0.66
89.	30.534	83.402	30.535	83.412	0.50	30.534	83.413	0.58
90.	30.513	83.131	30.513	83.139	0.41	30.514	83.139	0.42
91.	30.516	82.949	30.516	82.957	0.38	30.516	82.957	0.42
92.	30.542	82.677	30.542	82.689	0.60	30.543	82.688	0.54
93.	30.666	82.535	30.661	82.535	0.33	30.662	82.533	0.27
94.	30.818	82.580	30.810	82.578	0.47	30.811	82.576	0.48
95.	31.195	82.571	31.189	82.572	0.41	31.189	82.571	0.38
96.	31.442	82.528	31.433	82.531	0.56	31.433	82.529	0.54
97.	31.593	82.478	31.583	82.485	0.66	31.585	82.485	0.62
98.	31.799	82.339	31.791	82.346	0.64	31.791	82.345	0.58
99.	31.936	82.241	31.933	82.245	0.26	31.931	82.244	0.36
100.	32.189	82.015	32.183	82.023	0.55	32.179	82.020	0.65

Triad MWZ 51-82
Triad MYZ 83-100

REFERENCE POSITION, FLIGHT RECEIVER POSITION, SIMULATION RECEIVER POSITION, AND
DIFFERENCES FROM REFERENCE POSITION FOR 8970 CHAIN, DATA BASE POINTS 101-150

DATA BASE POINT	REF LAT DEGREES	REF LON DEGREES	FLT RCV LAT DEGREES	FLT RCV LON DEGREES	DIFF. REF/FLT NMI	SIM RCV LAT DEGREES	SIM RCV LON DEGREES	DIFF. REF/SIM NMI
101.	38.725	82.486	38.726	82.475	0.51	38.733	82.478	0.59
102.	38.701	82.708	38.702	82.700	0.37	38.709	82.704	0.50
103.	38.684	82.864	38.685	82.854	0.47	38.692	82.858	0.55
104.	38.666	83.102	38.666	83.093	0.44	38.673	83.096	0.51
105.	38.666	83.263	38.666	83.254	0.42	38.672	83.258	0.42
106.	38.665	83.508	38.665	83.496	0.57	38.671	83.501	0.50
107.	38.666	83.687	38.665	83.677	0.49	38.671	83.681	0.41
108.	38.663	83.936	38.662	83.924	0.59	38.668	83.929	0.44
109.	38.664	84.116	38.664	84.108	0.38	38.669	84.113	0.31
110.	38.664	84.299	38.664	84.289	0.48	38.670	84.295	0.39
111.	38.654	84.573	38.655	84.563	0.46	38.660	84.568	0.43
112.	38.646	84.851	38.646	84.839	0.55	38.651	84.843	0.47
113.	38.636	85.038	38.637	85.026	0.58	38.642	85.031	0.50
114.	38.625	85.227	38.626	85.213	0.63	38.631	85.217	0.60
115.	38.605	85.512	38.606	85.501	0.51	38.611	85.505	0.52
116.	38.594	35.692	38.595	35.683	0.41	38.600	35.686	0.46
117.	38.581	85.975	38.582	85.965	0.45	38.587	85.969	0.43
118.	38.570	86.462	38.570	86.454	0.35	38.575	86.457	0.39
119.	38.547	86.959	38.547	86.952	0.33	38.552	86.956	0.33
120.	38.540	87.260	38.540	87.247	0.63	38.546	87.253	0.51
121.	38.522	87.660	38.522	87.651	0.43	38.528	87.658	0.38
122.	38.504	87.952	38.505	87.943	0.43	38.511	87.953	0.41
123.	37.078	88.937	37.081	88.948	0.55	37.087	88.967	1.52
124.	36.906	88.689	36.911	88.696	0.49	36.914	88.712	1.22
125.	36.778	88.541	36.785	88.549	0.61	36.787	88.566	1.31
126.	36.600	88.308	36.605	88.316	0.51	36.608	88.332	1.25
127.	36.491	88.146	36.498	88.155	0.63	36.500	88.170	1.28
128.	36.361	87.887	36.362	87.897	0.46	36.363	87.911	1.18
129.	36.332	87.666	36.333	87.674	0.40	36.336	87.695	1.40
130.	38.193	89.785	38.197	89.770	0.73	38.204	89.761	1.31
131.	38.401	90.116	38.395	90.115	0.41	38.402	90.108	0.39
132.	38.795	90.377	38.789	90.376	0.38	38.794	90.367	0.48
133.	39.074	90.389	39.069	90.389	0.28	39.074	90.378	0.50
134.	39.365	90.461	39.361	90.459	0.27	39.366	90.447	0.64
135.	39.675	90.692	39.668	90.686	0.50	39.675	90.674	0.85
136.	39.936	91.032	39.937	91.022	0.44	39.944	91.008	1.20
137.	39.977	91.527	39.977	91.518	0.43	39.985	91.505	1.13
138.	40.022	92.014	40.021	92.001	0.62	40.029	91.989	1.25
139.	40.113	92.517	40.111	92.509	0.38	40.121	92.494	1.17
140.	40.228	92.991	40.225	92.981	0.49	40.234	92.968	1.11
141.	40.377	93.453	40.371	93.440	0.68	40.380	93.425	1.31
142.	40.563	93.892	40.557	93.879	0.68	40.566	93.860	1.49
143.	40.722	94.343	40.720	94.336	0.35	40.729	94.311	1.50
144.	40.856	94.804	40.853	94.796	0.37	40.865	94.780	1.20
145.	40.997	95.273	40.994	95.263	0.49	41.006	95.244	1.43
146.	41.175	95.788	41.174	95.780	0.35	41.186	95.758	1.52
147.	37.494	97.391	37.498	97.392	0.27	37.507	97.380	0.94
148.	37.205	97.170	37.214	97.173	0.59	37.222	97.165	1.06
149.	36.899	97.131	36.906	97.131	0.44	36.914	97.125	0.95
150.	36.842	96.733	36.838	96.750	0.82	36.845	96.745	0.59

Triad MWX 101-129
Triad MWY 130-150

REFERENCE POSITION, FLIGHT RECEIVER POSITION, SIMULATION RECEIVER POSITION, AND
DIFFERENCES FROM REFERENCE POSITION FOR 8970 CHAIN, DATA BASE POINTS 151-200

DATA BASE POINT	REF LAT DEGREES	REF LON DEGREES	FLT RCV LAT DEGREES	FLT RCV LON DEGREES	DIFF. REF/FLT NMI	SIM RCV LAT DEGREES	SIM RCV LON DEGREES	DIFF. REF/SIM NMI
151.	36.969	96.172	36.966	96.183	0.55	36.972	96.186	0.68
152.	37.107	95.586	37.104	95.603	0.81	37.109	95.596	0.47
153.	37.088	95.024	37.091	95.031	0.39	37.106	95.017	1.15
154.	36.890	94.518	36.895	94.529	0.59	36.900	94.527	0.73
155.	38.727	90.431	38.731	90.423	0.42	38.737	90.413	1.02
156.	38.440	90.419	38.447	90.422	0.42	38.454	90.414	0.88
157.	38.094	90.330	38.102	90.332	0.44	38.109	90.325	0.94
158.	37.692	90.250	37.702	90.252	0.59	37.710	90.244	1.10
159.	37.419	89.839	37.424	89.846	0.42	37.434	89.844	0.93
160.	37.187	89.371	37.188	89.379	0.39	37.194	89.372	0.39
161.	44.868	81.326	44.864	81.318	0.41	44.861	81.316	0.62
162.	45.091	81.735	45.088	81.730	0.28	45.083	81.726	0.62
163.	45.315	82.156	45.309	82.145	0.58	45.305	82.145	0.76
164.	45.534	82.585	45.532	82.581	0.22	45.527	82.574	0.64
165.	45.765	83.024	45.759	83.013	0.59	45.757	83.010	0.76
166.	45.991	83.162	45.985	83.451	0.56	45.984	83.448	0.71
167.	46.213	83.903	46.209	83.894	0.42	46.209	83.890	0.61
168.	46.427	84.403	46.426	84.395	0.31	46.423	84.396	0.39
169.	46.454	84.882	46.453	84.874	0.33	46.451	84.872	0.44
170.	46.479	85.332	46.479	85.324	0.35	46.478	85.326	0.27
171.	46.497	85.778	46.496	85.771	0.31	46.495	85.772	0.29
172.	46.518	86.235	46.517	86.226	0.35	46.514	86.231	0.30
173.	46.540	86.703	46.540	86.694	0.36	46.538	86.696	0.32
174.	46.549	87.169	46.548	87.159	0.39	46.545	87.162	0.37
175.	46.556	87.630	46.556	87.620	0.42	46.553	87.624	0.33
176.	46.568	88.085	46.568	88.079	0.27	46.565	88.082	0.22
177.	46.571	88.524	46.571	88.511	0.52	46.568	88.514	0.46
178.	46.568	88.956	46.568	88.948	0.33	46.566	88.950	0.28
179.	46.566	89.386	46.566	89.379	0.30	46.565	89.381	0.22
180.	46.530	89.818	46.529	89.811	0.28	46.528	89.806	0.51
181.	46.560	90.307	46.560	90.300	0.29	46.555	90.301	0.42
182.	46.617	90.743	46.616	90.732	0.43	46.614	90.739	0.22
183.	46.678	91.184	46.677	91.177	0.33	46.675	91.185	0.20
184.	46.756	91.635	46.754	91.627	0.36	46.752	91.636	0.27
185.	43.655	95.050	43.654	95.058	0.39	43.647	95.074	1.16
186.	43.639	94.358	43.639	94.375	0.74	43.633	94.392	1.50
187.	43.685	93.737	43.685	93.746	0.41	43.680	93.760	1.04
188.	43.753	93.113	43.750	93.130	0.75	43.745	93.145	1.47
189.	43.769	92.490	43.770	92.499	0.40	43.767	92.508	0.80
190.	43.679	91.885	43.682	91.896	0.53	43.678	91.906	0.90
191.	43.570	91.289	43.574	91.302	0.60	43.571	91.309	0.88
192.	43.439	90.699	43.441	90.710	0.49	43.439	90.716	0.74
193.	43.195	86.326	43.195	86.337	0.45	43.192	86.339	0.59
194.	43.249	85.692	43.246	85.708	0.71	43.243	85.706	0.69
195.	43.365	85.067	43.362	85.084	0.77	43.359	85.081	0.73
196.	43.520	84.460	43.518	84.466	0.31	43.511	84.472	0.75
197.	43.502	84.001	43.508	84.004	0.40	43.504	84.003	0.14
198.	43.225	83.884	43.231	83.887	0.38	43.227	83.887	0.18
199.	42.936	83.697	42.941	83.702	0.39	42.938	83.702	0.26
200.	42.612	83.365	42.618	83.371	0.42	42.616	83.375	0.52

Triad MWY 150-160
Triad MXY 161-200

REFERENCE POSITION, FLIGHT RECEIVER POSITION, SIMULATION RECEIVER POSITION, AND
DIFFERENCES FROM REFERENCE POSITION FOR 9940 CHAIN, DATA BASE POINTS 201-250

DATA BASE POINT	REF LAT DEGREES	REF LON DEGREES	FLT RCV LAT DEGREES	FLT RCV LON DEGREES	DIFF. REF/FLT NMI	SIM RCV LAT DEGREES	SIM RCV LON DEGREES	DIFF. REF/SIM NMI
201.	39.783	119.070	39.788	119.059	0.60	39.788	119.058	0.62
202.	39.708	119.227	39.711	119.221	0.33	39.710	119.219	0.41
203.	39.598	119.458	39.603	119.447	0.60	39.603	119.444	0.72
204.	39.517	119.696	39.516	119.686	0.45	39.516	119.682	0.64
205.	39.485	119.865	39.487	119.856	0.46	39.485	119.852	0.60
206.	39.432	120.119	39.433	120.111	0.38	39.431	120.107	0.55
207.	39.400	120.283	39.402	120.275	0.40	39.397	120.275	0.41
208.	39.350	120.533	39.349	120.526	0.33	39.345	120.527	0.41
209.	39.315	120.699	39.318	120.688	0.48	39.312	120.688	0.55
210.	39.265	120.948	39.267	120.937	0.52	39.262	120.937	0.55
211.	39.231	121.114	39.233	121.106	0.42	39.228	121.105	0.45
212.	39.181	121.366	39.183	121.354	0.54	39.179	121.354	0.56
213.	39.144	121.529	39.146	121.521	0.40	39.141	121.521	0.43
214.	39.113	121.697	39.114	121.689	0.38	39.110	121.685	0.58
215.	39.068	121.950	39.069	121.943	0.32	39.064	121.942	0.45
216.	38.868	122.065	38.879	122.061	0.70	38.875	122.061	0.46
217.	38.708	122.101	38.717	122.100	0.55	38.712	122.099	0.25
218.	38.544	122.119	38.554	122.119	0.62	38.548	122.120	0.24
219.	38.297	122.127	38.306	122.127	0.59	38.296	122.132	0.26
220.	38.051	122.136	38.060	122.136	0.53	38.044	122.145	0.59
221.	41.589	109.047	41.592	109.038	0.44	41.582	109.055	0.54
222.	41.553	109.224	41.556	109.212	0.54	41.551	109.228	0.23
223.	41.494	109.490	41.496	109.481	0.41	41.498	109.493	0.27
224.	41.443	109.764	41.445	109.755	0.44	41.446	109.768	0.23
225.	41.427	109.870	41.428	109.863	0.32	41.428	109.897	1.22
226.	41.294	111.091	41.295	111.082	0.41	41.293	111.090	0.08
227.	41.270	111.266	41.272	111.253	0.63	41.267	111.262	0.26
228.	41.244	111.456	41.245	111.446	0.46	41.242	111.453	0.18
229.	41.229	111.733	41.229	111.721	0.53	41.228	111.725	0.36
230.	41.218	111.992	41.219	111.983	0.40	41.216	111.988	0.21
231.	41.210	112.143	41.210	112.135	0.39	41.207	112.138	0.27
232.	41.033	112.111	41.041	112.115	0.48	41.038	112.120	0.51
233.	40.890	112.067	40.898	112.070	0.45	40.897	112.077	0.60
234.	40.809	111.996	40.806	111.999	0.18	40.800	111.969	1.36
235.	40.865	112.442	40.866	112.436	0.29	40.864	112.442	0.05
236.	40.830	112.599	40.832	112.592	0.31	40.831	112.592	0.31
237.	40.756	113.051	40.757	113.042	0.40	40.756	113.044	0.32
238.	40.744	113.239	40.745	113.230	0.43	40.745	113.232	0.31
239.	40.729	113.524	40.729	113.512	0.55	40.728	113.511	0.58
240.	40.727	113.713	40.726	113.703	0.50	40.727	113.704	0.40
241.	40.736	113.996	40.736	113.986	0.48	40.738	113.986	0.47
242.	40.741	114.060	40.740	114.046	0.61	40.741	114.046	0.62
243.	40.745	114.918	40.745	114.911	0.37	40.747	114.914	0.20
244.	40.744	114.981	40.744	114.971	0.44	40.743	114.975	0.30
245.	40.520	117.077	40.523	117.067	0.49	40.521	117.072	0.24
246.	40.467	117.252	40.469	117.246	0.28	40.468	117.251	0.08
247.	40.387	117.512	40.389	117.505	0.37	40.388	117.510	0.10
248.	40.290	117.760	40.293	117.753	0.31	40.293	117.756	0.26
249.	40.238	117.930	40.240	117.923	0.38	40.239	117.930	0.07
250.	40.115	118.360	40.118	118.350	0.48	40.117	118.360	0.13

Triad MWX 201-220
Triad MWY 221-250

REFERENCE POSITION, FLIGHT RECEIVER POSITION, SIMULATION RECEIVER POSITION, AND
DIFFERENCES FROM REFERENCE POSITION FOR 9940 CHAIN, DATA BASE POINTS 251-300

DATA BASE POINT	REF LAT DEGREES	REF LON DEGREES	FLT RCV LAT DEGREES	FLT RCV LON DEGREES	DIFF. REF/FLT NMI	SIM RCV LAT DEGREES	SIM RCV LON DEGREES	DIFF. REF/SIM NMI
251.	40.059	118.527	40.064	118.514	0.66	40.063	118.524	0.28
252.	39.935	118.756	39.938	118.751	0.30	39.937	118.764	0.40
253.	39.820	118.992	39.822	118.986	0.30	39.816	119.009	0.80
254.	38.033	116.897	38.030	116.913	0.75	38.027	116.922	1.23
255.	38.216	115.127	38.215	115.138	0.49	38.211	115.142	0.76
256.	38.251	114.473	38.249	114.484	0.54	38.250	114.490	0.79
257.	38.319	113.765	38.318	113.772	0.36	38.315	113.775	0.54
258.	38.392	113.172	38.390	113.185	0.61	38.387	113.186	0.74
259.	38.420	112.574	38.422	112.590	0.76	38.421	112.586	0.55
260.	38.441	111.985	38.441	111.997	0.55	38.441	111.992	0.33
261.	37.968	122.140	37.978	122.139	0.62	37.982	122.140	0.85
262.	37.804	122.160	37.811	122.160	0.39	37.815	122.160	0.66
263.	37.712	121.958	37.709	121.969	0.54	37.712	121.972	0.67
264.	37.802	121.629	37.802	121.640	0.52	37.806	121.643	0.71
265.	37.816	121.389	37.815	121.399	0.52	37.817	121.404	0.72
266.	37.837	121.033	37.837	121.042	0.42	37.840	121.057	1.15
267.	37.847	120.795	37.846	120.809	0.68	37.849	120.814	0.90
268.	37.857	120.558	37.857	120.571	0.62	37.861	120.575	0.83
269.	37.874	120.202	37.873	120.214	0.55	37.875	120.218	0.77
270.	37.890	119.846	37.890	119.855	0.44	37.890	119.860	0.67
271.	37.902	119.610	37.902	119.624	0.65	37.902	119.630	0.95
272.	37.914	119.373	37.913	119.385	0.57	37.914	119.390	0.82
273.	37.925	119.021	37.925	119.036	0.75	37.928	119.040	0.91
274.	37.941	118.667	37.943	118.688	0.99	37.943	118.687	0.94
275.	37.952	118.436	37.951	118.446	0.51	37.952	118.442	0.27
276.	37.987	118.089	37.985	118.103	0.66	37.987	118.099	0.48
277.	38.010	117.856	38.009	117.869	0.61	38.012	117.871	0.73
278.	38.035	117.377	38.035	117.391	0.65	38.039	117.387	0.54
279.	38.033	117.139	38.036	117.149	0.48	38.040	117.144	0.49
280.	38.032	117.100	38.033	117.112	0.60	38.040	117.106	0.54
281.	34.760	115.587	34.760	115.581	0.29	34.763	115.570	0.88
282.	34.753	115.831	34.752	115.820	0.54	34.748	115.814	0.91
283.	34.764	116.012	34.763	116.005	0.36	34.760	116.000	0.66
284.	34.791	116.285	34.790	116.277	0.41	34.784	116.272	0.76
285.	34.802	116.469	34.801	116.459	0.46	34.790	116.456	0.96
286.	34.776	116.648	34.777	116.641	0.34	34.771	116.639	0.53
287.	34.728	116.919	34.730	116.909	0.51	34.724	116.908	0.58
288.	34.699	117.099	34.700	117.088	0.54	34.693	117.088	0.66
289.	34.658	117.373	34.660	117.368	0.29	34.650	117.364	0.65
290.	34.640	117.649	34.640	117.641	0.39	34.634	117.642	0.51
291.	34.628	117.832	34.629	117.823	0.46	34.619	117.826	0.63
292.	34.589	118.092	34.600	118.086	0.73	34.588	118.091	0.09
293.	34.508	117.948	34.511	117.959	0.58	34.501	117.963	0.86
294.	34.466	117.764	34.469	117.776	0.63	34.459	117.780	0.88
295.	34.329	117.518	34.335	117.527	0.59	34.327	117.530	0.61
296.	34.237	117.355	34.242	117.363	0.51	34.233	117.366	0.60
297.	33.999	116.656	34.004	116.665	0.53	33.992	116.664	0.57
298.	33.856	116.413	33.860	116.418	0.34	33.854	116.419	0.30
299.	33.749	116.261	33.754	116.267	0.43	33.745	116.265	0.29
300.	33.697	115.971	33.698	115.983	0.59	33.686	115.976	0.71

Triad MWY 251-260
Triad MXY 261-300

REFERENCE POSITION, FLIGHT RECEIVER POSITION, SIMULATION RECEIVER POSITION, AND
DIFFERENCES FROM REFERENCE POSITION FOR 9960 CHAIN, DATA BASE POINTS 301-350

DATA BASE POINT	REF LAT DEGREES	REF LON DEGREES	FLT RCV LAT DEGREES	FLT RCV LON DEGREES	DIFF. REF/FLT NMI	SIM RCV LAT DEGREES	SIM RCV LON DEGREES	DIFF. REF/SIM NMI
301.	42.033	71.030	42.029	71.035	0.36	42.026	71.034	0.44
302.	42.193	70.824	42.187	70.831	0.48	42.185	70.831	0.58
303.	42.301	70.689	42.298	70.693	0.27	42.294	70.691	0.42
304.	42.633	70.592	42.625	70.590	0.46	42.622	70.587	0.68
305.	42.776	70.616	42.771	70.615	0.33	42.767	70.612	0.59
306.	42.977	70.630	42.970	70.631	0.46	42.966	70.629	0.69
307.	43.349	70.586	43.339	70.586	0.57	43.334	70.584	0.90
308.	43.532	70.463	43.527	70.469	0.39	43.522	70.466	0.64
309.	43.640	70.326	43.635	70.333	0.39	43.629	70.329	0.66
310.	43.916	69.991	43.910	69.997	0.42	43.903	69.992	0.76
311.	44.202	69.642	44.195	69.649	0.49	44.187	69.641	0.88
312.	44.322	69.517	44.317	69.522	0.37	44.308	69.510	0.91
313.	45.018	68.802	45.013	68.803	0.27	45.010	68.788	0.77
314.	45.118	68.761	45.111	68.764	0.40	45.108	68.750	0.78
315.	45.316	68.666	45.308	68.670	0.52	45.304	68.656	0.87
316.	46.149	70.380	46.154	70.369	0.58	46.149	70.363	0.72
317.	45.961	70.794	45.966	70.783	0.54	45.964	70.778	0.69
318.	45.880	70.976	45.886	70.961	0.70	45.884	70.957	0.82
319.	45.706	71.501	45.709	71.490	0.53	45.707	71.488	0.53
320.	45.570	72.053	45.572	72.044	0.38	45.570	72.034	0.79
321.	45.512	72.268	45.515	72.257	0.52	45.513	72.255	0.56
322.	45.493	72.340	45.497	72.326	0.65	45.495	72.324	0.68
323.	45.269	73.126	45.271	73.118	0.35	45.270	73.108	0.75
324.	45.151	73.666	45.154	73.657	0.42	45.154	73.654	0.54
325.	45.094	73.878	45.098	73.864	0.62	45.098	73.862	0.71
326.	45.014	74.195	45.018	74.181	0.62	45.019	74.181	0.68
327.	44.911	74.682	44.914	74.674	0.38	44.917	74.668	0.69
328.	44.521	74.341	44.527	74.346	0.38	44.529	74.347	0.56
329.	44.336	74.220	44.350	74.217	0.84	44.351	74.215	0.89
330.	44.183	74.299	44.189	74.292	0.48	44.191	74.292	0.55
331.	43.822	74.568	43.830	74.563	0.54	43.831	74.563	0.59
332.	43.687	74.682	43.696	74.677	0.58	43.694	74.679	0.46
333.	43.477	74.851	43.484	74.846	0.49	43.480	74.847	0.26
334.	35.004	77.872	34.995	77.878	0.60	34.988	77.858	1.16
335.	35.143	77.769	35.136	77.774	0.52	35.128	77.757	1.06
336.	35.343	77.589	35.337	77.595	0.48	35.323	77.584	1.23
337.	35.538	77.418	35.529	77.424	0.63	35.522	77.407	1.12
338.	35.679	77.320	35.674	77.324	0.38	35.667	77.323	0.73
339.	35.822	77.223	35.817	77.227	0.36	35.809	77.210	1.00
340.	36.037	77.079	36.029	77.084	0.53	36.022	77.083	0.92
341.	36.238	76.874	36.230	76.883	0.59	36.223	76.867	0.98
342.	36.350	76.743	36.342	76.752	0.62	36.333	76.738	1.04
343.	36.487	76.600	36.480	76.606	0.54	36.471	76.592	1.07
344.	36.704	76.386	36.697	76.393	0.53	36.690	76.377	0.92
345.	36.913	76.188	36.907	76.193	0.47	36.902	76.179	0.78
346.	37.071	76.092	37.062	76.098	0.65	37.058	76.084	0.89
347.	37.235	76.008	37.229	76.011	0.41	37.224	75.998	0.84
348.	37.475	75.882	37.468	75.887	0.46	37.462	75.875	0.89
349.	37.700	75.714	37.689	75.721	0.69	37.683	75.706	1.11
350.	37.831	75.613	37.820	75.621	0.74	37.813	75.606	1.16

Triad MWX 301-333
Triad MXY 334-350

REFERENCE POSITION, FLIGHT RECEIVER POSITION, SIMULATION RECEIVER POSITION, AND
DIFFERENCES FROM REFERENCE POSITION FOR 9960 CHAIN, DATA BASE POINTS 351-400

DATA BASE POINT	REF LAT DEGREES	REF LON DEGREES	FLT RCV LAT DEGREES	FLT RCV LON DEGREES	DIFF. REF/FLT NMI	SIM RCV LAT DEGREES	SIM RCV LON DEGREES	DIFF. REF/SIM NMI
351.	38.004	75.553	37.996	75.556	0.51	37.989	75.541	1.09
352.	38.231	75.381	38.225	75.386	0.43	38.220	75.371	0.84
353.	38.493	75.214	38.486	75.219	0.47	38.481	75.204	0.87
354.	38.658	75.114	38.648	75.120	0.69	38.643	75.107	0.99
355.	38.908	74.946	38.900	74.951	0.49	38.896	74.936	0.86
356.	39.064	74.850	39.056	74.854	0.50	39.052	74.840	0.86
357.	39.344	74.669	39.336	74.669	0.51	39.332	74.656	0.97
358.	39.495	74.664	39.501	74.669	0.38	39.496	74.658	0.29
359.	40.662	73.394	40.661	73.398	0.18	40.662	73.394	0.00
360.	40.674	73.258	40.674	73.262	0.18	40.673	73.258	0.04
361.	40.718	73.029	40.715	73.039	0.50	40.714	73.035	0.38
362.	40.789	72.777	40.786	72.788	0.53	40.785	72.785	0.44
363.	40.842	72.583	40.838	72.594	0.57	40.837	72.591	0.45
364.	40.899	72.387	40.896	72.396	0.45	40.895	72.394	0.37
365.	41.007	72.113	41.003	72.121	0.41	41.002	72.119	0.43
366.	41.081	71.932	41.076	71.941	0.49	41.075	71.940	0.51
367.	41.270	71.791	41.263	71.797	0.47	41.261	71.795	0.59
368.	41.200	81.470	41.203	81.475	0.28	41.207	81.480	0.62
369.	41.136	80.952	41.135	80.962	0.45	41.139	80.966	0.64
370.	41.147	80.404	41.147	80.412	0.37	41.149	80.416	0.55
371.	41.155	79.851	41.155	79.860	0.41	41.158	79.864	0.58
372.	41.028	79.459	41.036	79.459	0.46	41.038	79.462	0.63
373.	40.646	79.426	40.655	79.428	0.53	40.657	79.430	0.67
374.	38.852	81.060	38.853	81.050	0.47	38.855	81.051	0.46
375.	38.821	81.443	38.822	81.432	0.52	38.823	81.433	0.49
376.	38.791	81.816	38.792	81.810	0.26	38.795	81.812	0.31
377.	38.761	82.178	38.763	82.170	0.40	38.766	82.171	0.46
378.	38.718	82.551	38.719	82.543	0.37	38.722	82.543	0.43
379.	38.674	82.943	38.675	82.931	0.56	38.678	82.933	0.53
380.	38.665	83.345	38.665	83.336	0.39	38.667	83.339	0.78
381.	38.666	83.756	38.666	83.749	0.34	38.668	83.753	0.19
382.	38.664	84.208	38.665	84.198	0.46	38.667	84.202	0.35
383.	38.651	84.664	38.652	84.654	0.50	38.655	84.659	0.36
384.	38.631	85.133	38.632	85.120	0.60	38.635	85.124	0.52
385.	38.601	85.602	38.601	85.594	0.37	38.605	85.597	0.33
386.	38.581	86.088	38.581	86.078	0.44	38.584	86.083	0.30
387.	38.490	88.049	38.492	88.035	0.69	38.497	88.046	0.46
388.	38.477	88.129	38.479	88.120	0.45	38.482	88.131	0.33
389.	36.434	88.072	36.440	88.080	0.56	36.436	88.101	1.38
390.	36.324	87.593	36.325	87.603	0.46	36.321	87.620	1.32
391.	36.234	87.074	36.237	87.081	0.41	36.233	87.097	1.10
392.	36.114	86.581	36.117	86.590	0.46	36.112	86.611	1.47
393.	36.010	86.057	36.012	86.066	0.44	36.007	86.087	1.45
394.	35.904	85.518	35.906	85.528	0.48	35.897	85.542	1.24
395.	35.778	84.995	35.781	85.002	0.41	35.770	85.019	1.25
396.	35.869	84.437	35.865	84.447	0.57	35.855	84.457	1.29
397.	35.998	83.948	36.004	83.953	0.43	36.000	83.964	0.80
398.	35.859	83.470	35.862	83.481	0.59	35.855	83.486	0.82
399.	35.718	82.949	35.722	82.962	0.69	35.714	82.969	0.99
400.	35.551	82.457	35.554	82.465	0.46	35.547	82.471	0.73

Triad MXY 351-367
Triad MYZ 368-400

APPENDIX B

ACCURACY TESTING DATA BASE LORAN C PARAMETERS

Data in this appendix include:

COLUMN	DESCRIPTION
1	Data base point number from 1 through 400
2	Station letter identifiers in the preferred triad
3	Geometric dilution of precision in feet per microsecond
4	Atmospheric noise in decibels per microvolt per meter (dB/uV/m)
5	Field strength in dB/uV/m for the master station
6	Field strength in dB/uV/m for the middle station in triad
7	Field strength in dB/uV/m for the last station in triad
8	Envelope-to-cycle discrepancy (ECD) in microseconds for the master
9	ECD in microseconds for the middle station in the triad
10	ECD in microseconds for the last station in the triad
11	Time difference in microseconds between the master and middle station
12	Time difference in microseconds between the master and last station

DATA ASSOCIATED WITH PREFERRED TRIAD FOR DATA BASE POINTS IN 7980 CHAIN

DATA BASE POINT	STA IN TRIAD	GDOP	ATM NOISE	FIELD STRENGTH			ENVELOPE-TO-CYCLE DISCREPANCY IN USEC			TIME DIFFERENCE IN MICROSECONDS	
				MAS	S1	S2	MAST	SEC1	SEC2	MAS/SEC1	MAS/SEC2
1.	MWX	3388	60	75	85	61	3.50	3.20	2.50	11740.72	29001.69
2.	MWX	2989	60	74	85	61	3.20	2.90	2.20	11653.87	28863.99
3.	MWX	2908	60	73	85	60	3.20	3.20	1.90	11631.61	28827.75
4.	MWX	2612	57	72	85	61	3.20	2.90	2.20	11526.90	28640.10
5.	MWX	2493	60	72	86	62	3.20	3.20	2.20	11458.15	28488.66
6.	MWX	2477	61	72	85	62	3.20	3.20	1.90	11443.31	28451.99
7.	MWX	2464	58	71	85	62	3.20	3.20	2.50	11375.23	28261.67
8.	MWX	2518	55	70	84	63	3.20	3.20	2.50	11331.90	28110.39
9.	MWX	2541	55	70	84	63	3.20	3.20	2.50	11323.46	28075.01
10.	MWX	2689	56	69	82	63	2.90	2.90	2.50	11287.33	27896.70
11.	MWX	2840	57	68	82	63	3.20	3.20	2.50	11263.71	27756.19
12.	MWX	2882	55	67	82	63	3.20	3.20	2.20	11258.62	27722.71
13.	MWX	3113	56	67	80	64	3.20	2.90	2.20	11236.03	27552.58
14.	MWX	3322	53	66	79	64	2.50	2.50	2.20	11220.67	27414.85
15.	MWX	3378	53	66	79	65	2.90	2.90	2.50	11217.60	27383.60
16.	MWX	3679	53	65	79	65	2.90	3.20	2.50	11201.33	27216.00
17.	MWX	3971	54	65	78	65	3.20	2.90	2.50	11187.67	27067.99
18.	MWX	4030	53	64	77	66	3.20	2.90	2.50	11185.14	27038.69
19.	MWX	4409	53	63	77	66	2.90	3.20	2.50	11171.89	26873.87
20.	MWX	4770	55	63	76	66	2.90	3.20	2.20	11160.14	26727.51
21.	MWX	4846	54	63	76	66	2.90	3.20	2.20	11157.51	26697.92
22.	MWX	2256	53	70	92	68	2.50	2.50	1.90	11039.63	27712.60
23.	MWX	2094	53	70	92	68	2.50	2.50	1.90	11043.62	27756.82
24.	MWX	1325	55	72	96	66	2.50	2.50	1.90	11090.46	28054.75
25.	MWX	1140	56	73	97	66	2.50	2.50	1.90	11182.10	28267.15
26.	MWX	1145	57	74	97	66	2.50	2.50	1.90	11208.45	28310.46
27.	MWX	1334	56	74	96	65	2.50	2.50	1.60	11407.34	28569.26
28.	MWX	1407	57	74	94	65	1.90	2.20	1.90	11515.33	28655.14
29.	MWX	1423	56	75	93	65	2.50	2.20	1.90	11556.49	28681.71
30.	MWX	1423	56	74	92	64	2.20	2.50	1.60	11586.20	28689.17
31.	MWX	1753	58	75	90	63	2.20	2.20	1.60	11814.08	28980.26
32.	MWX	1819	59	75	90	63	2.20	2.50	1.60	11838.82	29020.55
33.	MWX	2252	56	77	87	63	2.50	2.50	1.90	12029.06	29261.80
34.	MWX	2701	55	77	86	62	2.20	2.50	1.60	12230.54	29492.58
35.	MWX	2798	55	77	85	62	2.50	2.50	1.60	12272.29	29539.20
36.	MWX	3443	55	78	83	60	2.20	2.50	1.30	12514.64	29807.50
37.	MWX	3768	58	80	82	58	2.50	2.50	1.30	12734.98	30030.23
38.	MWX	3823	57	80	81	58	2.20	2.20	1.00	12785.15	30079.51
39.	MWX	4097	62	82	80	57	2.20	2.50	1.60	13063.36	30353.32
40.	MWX	4266	63	83	78	56	2.20	2.20	0.70	13300.90	30584.86
41.	MWX	4271	64	84	78	55	2.20	2.20	0.40	13348.54	30629.94
42.	MWX	4398	63	87	76	53	2.50	2.20	0.70	13629.70	30900.15
43.	MWX	4603	61	90	74	53	2.50	1.60	0.70	13866.52	31133.83
44.	MWX	4644	62	90	74	53	2.20	1.90	0.70	13914.97	31181.70
45.	MWZ	2170	58	66	66	52	1.90	2.50	0.40	13061.52	62453.02
46.	MWZ	2075	57	67	65	53	1.90	1.90	-0.30	13156.75	62406.40
47.	MWZ	2063	57	67	64	53	1.90	1.90	-0.60	13173.93	62396.63
48.	MWZ	1978	57	66	66	53	1.90	2.50	-0.30	13304.83	62309.36
49.	MWZ	1925	58	66	65	54	1.60	2.20	-0.90	13418.97	62222.69
50.	MWZ	1919	58	66	65	54	1.60	2.20	-0.90	13436.34	62208.21

STA=STATION;   ATM=ATMOSPHERIC;   GDOP=GEOMETRIC DILUTION OF PRECISION;
MAS=MASTER;   S1=SEC1=SECONDARY 1;   S2=SEC2=SECONDARY 2;   USEC=MICROSECONDS

ATMOSPHERIC NOISE AND FIELD STRENGTH ARE IN DECIBELS PER MICROVOLT PER METER

DATA ASSOCIATED WITH PREFERRED TRIAD FOR DATA BASE POINTS IN 7980 CHAIN

DATA BASE POINT	STA IN TRIAD	GDOP	ATM NOISE	FIELD STRENGTH			ENVELOPE-TO-CYCLE DISCREPANCY IN USEC			TIME DIFFERENCE IN MICROSECONDS	
				MAS	S1	S2	MAST	SEC1	SEC2	MAS/SEC1	MAS/SEC2
51.	MWZ	1884	57	67	62	56	1.60	1.90	-0.90	13566.42	62094.30
52.	MWZ	1897	61	68	60	57	2.20	1.60	-0.90	13684.51	61954.08
53.	MWZ	2002	57	63	59	58	1.30	2.20	-0.30	13759.68	61762.63
54.	MWZ	2023	55	63	59	59	1.00	1.90	-0.60	13768.25	61732.30
55.	MWZ	2065	53	61	59	61	-0.30	1.90	0.00	13828.60	61620.21
56.	MWZ	2133	53	59	52	62	0.70	0.40	-0.30	13924.35	61457.48
57.	MWZ	2206	55	59	51	65	1.00	0.00	1.30	14003.22	61309.61
58.	MWZ	2218	61	59	50	66	0.70	-0.30	1.30	14014.55	61287.15
59.	MWZ	2315	53	62	45	69	1.30	-0.30	1.60	14098.12	61120.95
60.	MWZ	1887	56	69	56	68	2.20	0.40	1.60	14104.22	61633.23
61.	MWZ	1801	61	70	57	67	1.90	1.00	1.30	14097.03	61763.90
62.	MWZ	1777	64	70	58	67	2.20	1.00	1.30	14097.36	61801.36
63.	MWZ	1241	62	79	65	63	2.90	2.50	1.90	14128.97	62826.87
64.	MWZ	1178	69	81	66	63	3.50	2.90	1.60	14145.00	62975.81
65.	MWZ	1119	73	83	68	62	3.80	2.90	1.60	14169.28	63128.61
66.	MWZ	1104	72	84	69	63	3.20	2.50	1.30	14172.44	63167.58
67.	MWZ	1037	66	85	71	64	2.90	2.50	1.90	14106.00	63325.25
68.	MWZ	1010	65	86	72	62	2.90	2.50	1.30	13996.21	63461.49
69.	MWZ	1020	67	86	73	62	2.90	2.90	1.60	13893.25	63569.57
70.	MWZ	1026	69	86	73	62	3.20	2.50	1.60	13872.02	63590.55
71.	MWZ	1099	69	85	74	62	3.20	2.90	1.60	13702.99	63677.18
72.	MWZ	1200	68	84	75	60	3.20	2.90	1.60	13481.62	63698.10
73.	MWZ	1287	66	83	76	58	3.20	2.50	1.60	13298.42	63707.95
74.	MWZ	1305	65	82	76	58	3.20	2.50	1.60	13262.37	63709.44
75.	MWZ	1414	67	81	77	57	2.90	2.50	1.30	13048.93	63715.86
76.	MWZ	1528	64	80	78	55	2.90	2.50	1.00	12838.71	63720.69
77.	MWZ	1634	63	79	78	54	3.20	2.50	1.00	12663.42	63728.69
78.	MWZ	1654	64	79	79	54	3.20	2.50	1.30	12630.66	63728.08
79.	MWZ	1754	62	78	79	53	2.90	2.20	1.30	12466.69	63726.37
80.	MWZ	1901	63	77	80	53	3.20	2.50	1.00	12272.35	63729.37
81.	MWZ	2056	62	76	82	52	3.20	2.50	1.30	12104.49	63730.06
82.	MWZ	2093	60	76	82	52	3.20	2.50	1.60	12067.98	63730.37
83.	MYZ	1556	72	101	66	66	2.50	2.90	1.90	47160.83	63944.69
84.	MYZ	1461	68	98	67	67	2.50	2.90	1.90	47060.08	63856.91
85.	MYZ	1393	63	94	67	68	2.20	2.90	2.20	46899.71	63722.24
86.	MYZ	1300	60	90	68	68	2.50	2.90	2.20	46636.63	63477.21
87.	MYZ	1251	59	88	69	69	2.50	2.90	2.20	46493.80	63328.09
88.	MYZ	1222	56	87	69	69	2.50	2.90	1.90	46395.71	63224.57
89.	MYZ	1196	57	86	70	70	2.50	2.50	1.90	46298.61	63123.07
90.	MYZ	1159	57	85	71	70	2.50	2.90	1.60	46150.72	62973.44
91.	MYZ	1135	56	84	71	70	2.50	3.20	1.90	46060.11	62872.61
92.	MYZ	1102	58	83	71	70	2.90	3.20	1.90	45937.02	62719.67
93.	MYZ	1085	59	82	70	70	2.50	3.20	1.90	45907.56	62612.99
94.	MYZ	1092	61	82	70	70	2.90	3.20	1.90	45982.46	62607.41
95.	MYZ	1116	60	82	70	72	2.50	3.20	2.20	46103.43	62517.66
96.	MYZ	1142	62	82	69	72	2.90	3.20	2.20	46153.27	62428.87
97.	MYZ	1160	63	81	68	73	3.20	2.90	1.90	46172.36	62360.07
98.	MYZ	1182	61	81	69	74	2.90	3.20	2.20	46160.77	62217.85
99.	MYZ	1199	60	81	68	74	2.90	3.20	1.90	46150.10	62116.78
100.	MYZ	1230	57	80	66	75	2.90	2.50	2.20	46113.54	61910.00

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ATMOSPHERIC NOISE AND FIELD STRENGTH ARE IN DECIBELS PER MICROVOLT PER METER

DATA BASE POINT	STA IN TRIAD	GDOP	ATM NOISE	FIELD STRENGTH			ENVELOPE-TO-CYCLE DISCREPANCY IN USEC			TIME DIFFERENCE IN MICROSECONDS	
				MAS	S1	S2	MAST	SEC1	SEC2	MAS/SEC1	MAS/SEC2
101.	MWX	959	57	70	49	67	1.60	-0.30	3.20	15835.70	31833.07
102.	MWX	956	56	70	50	66	1.90	-0.90	3.20	15868.59	31945.76
103.	MWX	954	55	71	50	65	1.90	-0.60	2.90	15891.10	32022.78
104.	MWX	953	57	71	50	65	1.60	-0.90	2.90	15930.26	32140.85
105.	MWX	952	55	72	51	64	1.60	-1.20	2.50	15963.60	32220.25
106.	MWX	952	59	73	52	64	1.90	-0.90	3.50	16014.86	32339.15
107.	MWX	953	56	73	55	64	1.90	-0.60	3.20	16054.04	32427.38
108.	MWX	955	60	74	56	64	1.90	0.70	3.20	16107.70	32549.36
109.	MWX	956	65	75	56	63	2.20	1.00	3.20	16149.41	32639.28
110.	MWX	959	67	76	56	63	2.20	1.00	3.20	16191.71	32728.27
111.	MWX	964	56	76	58	63	2.50	1.90	2.90	16250.11	32862.19
112.	MWX	971	58	77	58	62	2.50	1.60	3.20	16310.58	32996.15
113.	MWX	977	57	78	58	62	2.20	1.60	2.90	16350.09	33086.56
114.	MWX	984	57	78	59	62	2.20	2.20	2.50	16388.13	33175.41
115.	MWX	999	62	79	58	61	2.20	1.60	2.90	16444.84	33310.29
116.	MWX	1012	57	80	59	61	2.20	1.60	2.50	16480.34	33393.35
117.	MWX	1037	59	80	58	60	2.20	2.20	2.50	16536.32	33519.37
118.	MWX	1104	64	82	57	60	2.20	1.90	2.50	16631.53	33723.30
119.	MWX	1233	64	83	58	59	2.20	2.20	2.50	16701.15	33904.05
120.	MWX	1359	64	83	59	58	2.20	2.50	2.50	16734.80	33995.83
121.	MWX	1615	67	83	60	58	2.20	2.50	2.50	16753.68	34096.23
122.	MWX	1884	62	83	60	58	2.20	2.20	2.50	16750.90	34151.97
123.	MWX	2551	57	76	63	54	2.20	2.20	2.20	15784.78	34090.04
124.	MWX	2311	58	75	63	54	1.90	2.20	2.50	15658.55	34031.38
125.	MWX	2194	60	75	64	55	1.90	2.20	1.90	15564.17	33991.49
126.	MWX	2043	56	74	64	54	1.90	1.90	2.20	15424.50	33927.84
127.	MWX	1955	54	73	64	54	1.90	1.90	2.50	15336.70	33883.89
128.	MWX	1832	58	73	64	54	1.60	1.90	2.20	15217.93	33815.43
129.	MWX	1735	59	73	65	54	1.90	1.90	1.90	15177.50	33766.88
130.	MWY	1150	58	78	60	52	2.20	2.20	1.00	16474.78	50927.39
131.	MWY	1113	57	77	60	53	1.30	2.50	1.00	16557.93	50797.60
132.	MWY	1083	59	78	60	55	1.30	2.90	0.40	16732.24	50648.17
133.	MWY	1073	59	78	58	55	1.60	1.60	1.30	16861.67	50585.28
134.	MWY	1084	57	78	57	55	1.60	2.20	0.70	16977.61	50487.55
135.	MWY	1130	59	78	57	56	1.90	2.20	1.00	17062.93	50313.06
136.	MWY	1198	57	76	55	58	1.60	1.60	0.70	17105.00	50099.19
137.	MWY	1246	56	75	55	58	1.60	1.60	0.70	17048.61	49908.07
138.	MWY	1296	57	74	55	58	1.60	1.90	0.70	16998.93	49724.57
139.	MWY	1358	56	73	54	59	1.60	1.90	1.00	16963.58	49520.74
140.	MWY	1424	56	71	54	59	1.90	1.90	0.40	16940.13	49323.28
141.	MWY	1496	54	70	53	60	1.60	2.20	1.00	16928.99	49122.46
142.	MWY	1576	55	69	52	61	1.60	2.20	0.40	16930.24	48914.31
143.	MWY	1656	54	68	52	61	1.60	2.20	1.00	16924.38	48715.15
144.	MWY	1736	54	67	51	61	1.60	2.50	1.00	16911.53	48527.73
145.	MWY	1823	52	66	50	62	1.60	2.20	1.00	16900.95	48344.18
146.	MWY	1929	53	65	49	62	1.60	1.90	1.00	16895.33	48136.76
147.	MWY	2030	56	59	54	52	2.50	2.90	0.40	15811.51	48942.87
148.	MWY	2009	57	59	54	51	2.90	3.20	1.00	15726.55	49058.53
149.	MWY	2029	57	59	55	50	2.50	3.50	1.30	15628.85	49135.78
150.	MWY	1964	58	60	56	50	2.90	3.50	1.30	15608.84	49238.22

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ATMOSPHERIC NOISE AND FIELD STRENGTH ARE IN DECIBELS PER MICROVOLT PER METER

DATA ASSOCIATED WITH PREFERRED TRIAD FOR DATA BASE POINTS IN 8970 CHAIN

DATA BASE POINT	STA IN TRIAD	GDOP	ATM NOISE	FIELD STRENGTH			ENVELOPE-TO-CYCLE DISCREPANCY IN USEC			TIME DIFFERENCE IN MICROSECONDS	
				MAS	S1	S2	MAST	SEC1	SEC2	MAS/SEC1	MAS/SEC2
151.	MWY	1856	58	61	57	51	1.90	2.90	1.30	15656.21	49344.00
152.	MWY	1750	58	63	56	51	2.20	2.20	1.30	15712.42	49459.72
153.	MWY	1669	60	63	56	51	1.90	2.50	1.00	15720.91	49606.56
154.	MWY	1623	59	63	57	51	2.20	2.20	1.00	15648.64	49772.35
155.	MWY	1091	57	78	60	55	2.90	2.90	1.60	16699.32	50643.42
156.	MWY	1116	57	77	59	54	2.20	2.90	1.30	16557.58	50692.12
157.	MWY	1159	58	77	60	53	1.90	2.20	1.90	16381.74	50768.60
158.	MWY	1229	57	76	62	51	1.90	2.20	1.30	16162.28	50835.61
159.	MWY	1309	58	75	63	51	2.20	2.20	1.30	16011.33	50963.97
160.	MWY	1432	59	75	64	49	1.60	2.50	0.70	15862.45	51088.75
161.	MXY	1049	55	63	74	46	2.20	3.20	-3.10	30092.57	48887.19
162.	MXY	1041	53	63	73	48	1.90	2.90	-2.10	30240.89	48766.64
163.	MXY	1035	55	63	72	49	1.90	3.20	-0.90	30384.08	48637.93
164.	MXY	1033	52	63	71	50	1.90	2.90	0.70	30522.09	48500.71
165.	MXY	1035	53	63	69	51	2.50	2.50	1.90	30652.38	48350.64
166.	MXY	1040	53	62	67	52	1.90	2.50	1.60	30774.83	48194.13
167.	MXY	1048	52	61	66	53	2.50	2.90	1.30	30889.71	48030.31
168.	MXY	1058	53	61	65	54	1.90	2.50	1.30	31017.12	47855.29
169.	MXY	1050	52	60	63	54	1.60	2.20	0.40	31156.28	47766.68
170.	MXY	1046	52	62	63	55	2.20	2.50	-0.30	31284.12	47676.72
171.	MXY	1043	53	61	62	55	1.60	2.20	-0.30	31407.04	47587.69
172.	MXY	1044	51	62	61	58	1.60	2.20	0.00	31528.53	47489.95
173.	MXY	1048	51	61	60	58	1.90	2.50	0.00	31645.12	47382.78
174.	MXY	1058	51	61	59	59	1.90	2.20	0.40	31759.71	47277.96
175.	MXY	1072	50	60	58	58	1.60	2.50	-0.30	31868.16	47168.86
176.	MXY	1090	51	58	56	60	1.60	2.90	-0.30	31969.03	47052.55
177.	MXY	1110	50	59	54	64	2.20	2.50	1.00	32061.23	46943.07
178.	MXY	1132	51	58	54	66	1.60	2.50	1.00	32150.59	46831.11
179.	MXY	1158	51	59	54	67	2.50	2.50	1.00	32234.13	46716.55
180.	MXY	1187	51	59	53	69	1.90	2.50	1.00	32320.89	46620.82
181.	MXY	1227	50	58	51	71	1.30	2.20	1.00	32399.23	46466.98
182.	MXY	1266	50	58	51	71	1.60	2.50	1.00	32455.08	46306.94
183.	MXY	1309	50	58	50	73	1.60	2.50	1.00	32507.74	46142.65
184.	MXY	1358	49	58	49	75	1.60	2.20	1.30	32553.38	45966.02
185.	MXY	2856	51	62	47	68	1.90	1.60	1.00	33585.51	47069.53
186.	MXY	2542	52	63	48	68	1.60	1.90	1.00	33559.79	47228.23
187.	MXY	2278	53	64	49	68	1.90	2.20	1.30	33517.87	47350.79
188.	MXY	2041	52	65	50	68	1.60	1.90	1.30	33465.73	47465.26
189.	MXY	1845	53	65	51	67	1.60	1.90	1.30	33414.99	47616.91
190.	MXY	1697	53	66	52	66	1.60	1.90	1.00	33389.12	47833.20
191.	MXY	1568	54	67	53	65	1.90	1.90	1.30	33363.41	48063.38
192.	MXY	1457	57	68	54	64	1.60	1.60	1.60	33339.46	48310.39
193.	MXY	963	54	73	64	57	1.90	1.60	1.30	32479.45	49400.78
194.	MXY	952	56	72	65	55	1.90	1.60	1.00	32235.37	49435.63
195.	MXY	950	56	71	67	54	2.20	1.60	1.00	31957.62	49419.54
196.	MXY	953	54	70	68	53	1.90	1.60	1.00	31665.56	49375.38
197.	MXY	962	55	70	70	53	1.60	2.50	1.90	31469.35	49405.45
198.	MXY	976	55	70	70	52	2.20	2.90	1.00	31490.70	49555.73
199.	MXY	999	54	70	71	51	2.50	2.90	1.00	31483.31	49709.22
200.	MXY	1039	57	70	72	50	1.90	3.20	1.60	31413.87	49871.49

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ATMOSPHERIC NOISE AND FIELD STRENGTH ARE IN DECIBELS PER MICROVOLT PER METER

DATA ASSOCIATED WITH PREFERRED TRIAD FOR DATA BASE POINTS IN 9940 CHAIN

DATA BASE POINT	STA IN TRIAD	GDOP	ATM NOISE	FIELD STRENGTH			ENVELOPE-TO-CYCLE DISCREPANCY IN USEC			TIME DIFFERENCE IN MICROSECONDS	
				MAS	S1	S2	MAST	SEC1	SEC2	MAS/SEC1	MAS/SEC2
201.	MWX	1080	68	99	68	75	2.20	1.60	1.60	16393.13	29043.58
202.	MWX	1059	69	97	68	75	1.90	1.60	1.60	16402.57	28974.02
203.	MWX	1118	71	95	68	76	1.90	1.60	1.60	16389.03	28849.33
204.	MWX	1164	62	92	67	76	1.90	1.00	1.30	16351.99	28706.31
205.	MWX	1173	61	90	68	77	1.60	1.60	1.60	16314.31	28606.81
206.	MWX	1185	64	87	65	78	1.60	1.30	1.60	16260.58	28455.80
207.	MWX	1189	64	85	65	79	1.30	0.70	1.60	16225.70	28356.74
208.	MWX	1194	66	83	66	32	1.30	1.90	2.20	16174.55	28207.60
209.	MWX	1197	67	81	62	83	1.30	1.00	1.90	16142.53	28111.99
210.	MWX	1199	65	78	62	86	0.70	0.00	2.20	16093.89	27964.61
211.	MWX	1199	63	77	61	87	0.70	−0.30	2.20	16061.77	27864.76
212.	MWX	1196	63	76	59	89	0.70	−0.60	2.50	16015.17	27717.41
213.	MWX	1194	63	74	59	90	0.40	−0.60	2.50	15986.10	27618.00
214.	MWX	1186	62	74	61	92	0.40	−0.30	2.50	15956.04	27521.55
215.	MWX	1162	61	74	61	94	0.40	0.40	2.90	15909.75	27372.52
216.	MWX	1343	60	74	62	97	0.70	0.70	3.20	15934.51	27261.33
217.	MWX	1753	64	74	61	98	0.70	0.70	3.20	15966.79	27219.53
218.	MWX	2553	64	73	61	98	1.00	0.70	3.20	16000.43	27213.97
219.	MWX	4149	64	72	61	94	0.70	1.00	2.50	16050.64	27241.09
220.	MWX	5937	65	72	60	90	0.70	0.40	1.90	16094.42	27275.50
221.	MWY	2788	51	59	51	58	1.60	1.30	1.30	14427.24	41964.49
222.	MWY	2717	51	59	52	59	1.90	1.30	1.60	14446.94	41975.75
223.	MWY	2612	50	60	52	59	1.60	0.70	1.60	14479.45	41992.44
224.	MWY	2508	51	60	52	58	1.60	1.00	1.30	14513.33	42011.51
225.	MWY	2468	51	60	52	57	1.60	0.70	0.70	14527.39	42022.42
226.	MWY	2058	52	63	54	64	0.70	0.40	1.60	14657.53	42145.39
227.	MWY	2004	51	63	55	61	1.00	0.40	0.00	14679.42	42164.60
228.	MWY	1948	52	64	54	63	0.70	0.00	0.40	14704.25	42186.72
229.	MWY	1870	52	65	55	65	1.00	−0.30	1.00	14731.83	42225.71
230.	MWY	1801	52	66	59	64	1.00	0.40	−0.30	14758.47	42265.86
231.	MWY	1762	55	67	60	66	1.30	0.40	0.40	14774.85	42289.13
232.	MWY	1757	55	66	59	65	1.00	0.40	0.00	14837.23	42243.50
233.	MWY	1760	54	66	59	65	0.70	0.40	−0.60	14885.50	42199.30
234.	MWY	1775	55	67	60	69	1.30	−0.30	2.90	14910.03	42155.29
235.	MWY	1665	56	67	62	67	1.30	1.30	1.30	14933.78	42254.67
236.	MWY	1625	55	68	62	66	1.30	0.70	1.00	14961.66	42273.36
237.	MWY	1519	56	69	66	68	1.30	1.60	1.90	15039.26	42340.36
238.	MWY	1479	59	70	67	70	1.60	1.60	1.90	15064.83	42376.00
239.	MWY	1421	58	70	67	69	1.30	1.90	2.20	15103.73	42431.15
240.	MWY	1385	58	70	67	68	1.30	1.60	1.90	15127.54	42473.67
241.	MWY	1335	58	70	68	68	1.30	1.60	1.60	15158.27	42541.92
242.	MWY	1325	58	70	68	67	1.00	1.90	1.90	15163.74	42556.86
243.	MWY	1197	58	72	68	66	1.00	1.30	0.40	15273.91	42778.66
244.	MWY	1189	58	72	67	66	0.70	1.60	0.70	15283.59	42794.18
245.	MWY	1017	61	82	70	66	1.60	2.20	0.70	15710.43	43388.54
246.	MWY	1014	60	83	68	67	1.60	1.60	1.60	15768.79	43440.57
247.	MWY	1015	59	85	69	66	1.60	1.60	1.30	15856.71	43517.49
248.	MWY	1017	61	87	70	65	1.90	1.90	0.70	15952.27	43591.07
249.	MWY	1028	61	88	69	67	1.60	1.60	1.60	16012.41	43645.55
250.	MWY	1112	64	91	70	65	1.60	1.90	1.00	16150.79	43779.61

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MAS=MASTER;   S1=SEC1=SECONDARY 1;   S2=SEC2=SECONDARY 2;   USEC=MICROSECONDS

ATMOSPHERIC NOISE AND FIELD STRENGTH ARE IN DECIBELS PER MICROVOLT PER METER

DATA ASSOCIATED WITH PREFERRED TRIAD FOR DATA BASE POINTS IN 9940 CHAIN

DATA BASE POINT	STA IN TRIAD	GDOP	ATM NOISE	FIELD STRENGTH MAS	S1	S2	ENVELOPE-TO-CYCLE DISCREPANCY IN USEC MAST	SEC1	SEC2	TIME DIFFERENCE IN MICROSECONDS MAS/SEC1	MAS/SEC2
251.	MWY	1199	66	93	69	65	1.60	1.90	1.30	16205.22	43827.81
252.	MWY	1486	66	96	69	66	1.90	1.90	1.00	16309.50	43892.93
253.	MWY	4588	68	99	68	66	2.20	1.60	1.30	16381.68	43932.65
254.	MWY	1903	61	80	61	74	1.60	0.70	1.60	16444.44	42360.42
255.	MWY	1446	57	72	60	75	0.70	1.30	1.30	16133.22	41863.63
256.	MWY	1487	55	71	60	77	1.00	0.70	1.60	16019.15	41709.60
257.	MWY	1580	57	69	58	78	1.00	0.70	2.50	15893.03	41583.81
258.	MWY	1690	54	67	58	76	1.00	0.70	1.60	15788.39	41511.50
259.	MWY	1841	55	66	61	74	1.30	2.20	1.30	15694.13	41437.48
260.	MWY	2016	55	63	60	72	0.40	1.60	1.60	15608.67	41373.71
261.	MXY	1555	64	72	89	57	0.70	1.90	-1.50	27286.68	43245.61
262.	MXY	1629	64	72	88	58	1.00	1.90	-0.90	27305.05	43189.45
263.	MXY	1509	63	72	87	59	0.40	1.60	-0.60	27380.78	43146.32
264.	MXY	1306	62	73	87	58	1.00	2.50	-0.30	27492.30	43166.23
265.	MXY	1214	63	73	87	58	1.00	2.90	-0.90	27588.21	43159.28
266.	MXY	1115	62	72	86	57	0.40	3.20	-0.90	27735.38	43149.45
267.	MXY	1065	62	73	85	56	0.40	2.90	-1.20	27841.19	43137.66
268.	MXY	1024	61	74	84	55	0.40	2.50	-1.50	27945.53	43125.11
269.	MXY	982	62	75	82	54	0.40	2.50	-2.10	28099.15	43099.73
270.	MXY	966	60	76	79	55	0.40	1.60	-1.80	28247.40	43067.41
271.	MXY	966	59	77	76	55	0.70	1.60	-2.10	28338.40	43042.58
272.	MXY	974	59	78	73	61	1.00	1.90	-1.80	28427.83	43011.38
273.	MXY	1007	61	82	67	64	1.60	0.40	-0.60	28546.57	42953.28
274.	MXY	1069	59	81	70	66	1.60	0.00	-0.30	28650.72	42881.40
275.	MXY	1128	61	83	70	69	1.90	0.40	-0.30	28712.75	42822.12
276.	MXY	1246	61	81	70	71	1.60	1.30	1.30	28792.43	42742.77
277.	MXY	1349	62	81	69	72	1.60	1.30	1.30	28837.70	42685.02
278.	MXY	1615	62	82	68	74	1.60	1.00	1.30	28909.15	42535.07
279.	MXY	1771	61	81	67	73	1.60	0.70	1.30	28934.78	42448.55
280.	MXY	1798	62	81	67	73	1.60	0.70	1.30	28938.28	42434.54
281.	MXY	3365	51	66	56	92	1.30	1.00	1.90	28618.07	40258.31
282.	MXY	3102	53	66	58	88	1.30	0.40	1.60	28591.54	40348.90
283.	MXY	2940	54	65	58	88	1.30	0.70	1.60	28572.82	40422.60
284.	MXY	2746	51	64	59	86	0.70	0.70	1.60	28544.75	40534.10
285.	MXY	2651	54	64	60	87	0.70	0.70	2.20	28523.62	40607.87
286.	MXY	2608	53	64	62	86	0.70	1.30	2.20	28499.26	40675.24
287.	MXY	2564	56	66	64	85	0.70	1.00	1.90	28460.20	40767.82
288.	MXY	2540	57	63	64	82	0.40	1.60	1.60	28433.15	40827.72
289.	MXY	2509	53	65	66	81	1.30	1.90	1.30	28391.14	40918.33
290.	MXY	2471	53	62	66	79	0.70	1.60	0.70	28349.28	41012.84
291.	MXY	2452	51	59	68	78	0.00	1.90	0.40	28320.44	41072.37
292.	MXY	2453	48	56	67	77	-0.60	1.90	0.00	28276.88	41153.17
293.	MXY	2539	48	57	68	78	-0.30	1.90	0.00	28289.80	41088.52
294.	MXY	2605	50	58	67	78	-0.90	1.90	1.30	28314.08	41017.00
295.	MXY	2786	53	61	66	79	0.00	1.60	1.30	28339.43	40903.28
296.	MXY	2927	52	62	66	78	0.00	1.90	1.00	28354.50	40829.32
297.	MXY	3549	50	59	60	80	0.40	1.00	1.00	28424.98	40561.11
298.	MXY	3965	49	58	59	81	0.40	1.30	1.30	28442.47	40471.69
299.	MXY	4307	50	57	60	81	0.00	1.60	1.30	28451.09	40419.41
300.	MXY	4811	50	59	58	82	-0.30	1.00	1.30	28477.90	40337.10

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ATMOSPHERIC NOISE AND FIELD STRENGTH ARE IN DECIBELS PER MICROVOLT PER METER

DATA ASSOCIATED WITH PREFERRED TRIAD FOR DATA BASE POINTS IN 9960 CHAIN

DATA BASE POINT	STA IN TRIAD	GDOP	ATM NOISE	FIELD STRENGTH			ENVELOPE-TO-CYCLE DISCREPANCY IN USEC			TIME DIFFERENCE IN MICROSECONDS	
				MAS	S1	S2	MAST	SEC1	SEC2	MAS/SEC1	MAS/SEC2
301.	MWX	1067	65	64	60	80	1.00	1.30	1.60	14140.76	25767.75
302.	MWX	1001	66	64	62	81	1.60	1.60	1.60	14019.23	25730.81
303.	MWX	972	67	66	63	82	2.20	1.90	2.20	13934.60	25713.59
304.	MWX	951	64	63	64	81	1.30	1.90	2.20	13794.15	25797.42
305.	MWX	952	65	64	64	80	1.60	2.20	2.20	13756.86	25859.37
306.	MWX	954	63	64	64	79	1.90	1.60	1.90	13696.91	25936.05
307.	MWX	964	62	62	62	77	1.00	1.60	1.90	13549.24	26045.69
308.	MWX	972	59	60	63	75	1.00	1.30	1.30	13432.93	26068.16
309.	MWX	979	60	59	64	76	0.70	1.30	2.20	13338.38	26060.65
310.	MWX	1004	58	57	66	75	0.40	1.30	2.20	13100.07	26050.36
311.	MWX	1040	56	54	68	71	0.00	1.60	1.30	12850.75	26045.41
312.	MWX	1057	55	53	69	70	-0.30	1.60	1.30	12751.39	26048.98
313.	MWX	1163	56	50	74	66	-0.30	2.20	1.30.	12182.54	26082.04
314.	MWX	1174	57	50	74	65	-0.60	1.90	1.60	12123.66	26098.36
315.	MWX	1199	56	49	76	65	-0.90	1.90	1.30	11998.49	26126.52
316.	MWX	1462	59	60	77	58	0.70	1.90	0.40	12329.55	26650.92
317.	MWX	1424	58	60	75	59	0.40	1.60	0.00	12582.81	26719.74
318.	MWX	1412	57	60	74	58	-0.30	1.60	0.40	12692.37	26751.96
319.	MWX	1408	55	62	69	56	0.70	1.60	-0.30	12995.54	26866.24
320.	MWX	1434	55	63	69	56	1.00	1.60	-0.30	13289.63	27003.64
321.	MWX	1446	55	64	67	56	1.00	1.60	-0.30	13408.99	27062.72
322.	MWX	1450	54	64	67	55	0.70	1.30	-0.60	13446.60	27081.71
323.	MWX	1513	53	66	65	55	1.00	1.60	-0.30	13877.57	27309.63
324.	MWX	1587	57	68	65	55	1.00	1.60	-0.90	14158.68	27485.26
325.	MWX	1618	55	68	64	55	0.70	1.60	-0.60	14269.79	27554.18
326.	MWX	1671	55	70	63	53	1.00	1.60	-0.60	14435.90	27662.16
327.	MWX	1776	55	74	62	50	1.60	1.60	-1.50	14677.98	27830.95
328.	MWX	1570	54	72	57	51	1.00	0.70	-1.50	14720.60	27722.84
329.	MWX	1499	53	71	57	51	0.70	0.40	-1.50	14742.31	27670.26
330.	MWX	1487	51	72	55	50	1.00	0.40	-1.80	14843.48	27698.56
331.	MWX	1490	54	77	49	51	1.60	0.00	-1.20	15115.15	27809.14
332.	MWX	1499	53	79	49	53	1.60	-0.90	-0.90	15222.69	27859.42
333.	MWX	1517	53	81	47	54	1.60	-0.90	-1.20	15384.30	27934.68
334.	MXY	1795	57	59	55	90	1.30	0.40	2.50	27361.40	39685.85
335.	MXY	1739	57	60	56	89	1.90	0.70	2.20	27356.82	39791.67
336.	MXY	1665	55	62	57	88	2.20	0.70	2.20	27344.47	39950.80
337.	MXY	1606	55	63	57	86	2.50	1.00	2.20	27331.02	40112.72
338.	MXY	1574	55	63	58	85	2.20	0.70	2.20	27329.69	40226.62
339.	MXY	1543	55	63	58	84	2.20	0.70	2.20	27322.39	40341.19
340.	MXY	1498	53	64	59	83	2.20	0.40	2.20	27319.38	40508.37
341.	MXY	1448	53	64	59	82	2.20	0.40	2.20	27296.17	40676.50
342.	MXY	1419	54	65	60	81	2.20	1.00	2.20	27280.69	40769.86
343.	MXY	1387	54	65	60	80	2.20	0.70	2.50	27263.80	40884.28
344.	MXY	1341	55	66	62	79	2.20	0.70	2.20	27239.80	41064.03
345.	MXY	1299	54	66	63	78	1.60	0.70	2.20	27217.04	41234.72
346.	MXY	1273	54	67	63	78	1.90	0.70	2.20	27211.64	41353.92
347.	MXY	1249	55	68	64	78	2.20	1.00	2.20	27209.50	41478.95
348.	MXY	1215	56	69	64	76	2.20	1.00	2.20	27206.47	41656.99
349.	MXY	1178	56	69	65	76	2.20	1.00	2.20	27188.85	41826.48
350.	MXY	1158	57	69	65	75	2.20	1.00	2.20	27177.79	41924.94

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ATMOSPHERIC NOISE AND FIELD STRENGTH ARE IN DECIBELS PER MICROVOLT PER METER

DATA ASSOCIATED WITH PREFERRED TRIAD FOR DATA BASE POINTS IN 9960 CHAIN

DATA BASE POINT	STA IN TRIAD	GDOP	ATM NOISE	FIELD STRENGTH			ENVELOPE-TO-CYCLE DISCREPANCY IN USEC			TIME DIFFERENCE IN MICROSECONDS	
				MAS	S1	S2	MAST	SEC1	SEC2	MAS/SEC1	MAS/SEC2
351.	MXY	1138	55	68	65	74	1.90	1.00	2.20	27181.94	42052.18
352.	MXY	1105	55	69	66	74	1.90	1.00	2.20	27162.42	42223.12
353.	MXY	1072	55	70	67	72	1.90	1.00	2.20	27146.92	42413.85
354.	MXY	1053	58	71	68	72	2.20	1.00	2.20	27138.45	42529.50
355.	MXY	1025	58	72	69	72	2.20	1.00	2.50	27117.92	42709.02
356.	MXY	1010	58	72	69	72	2.20	1.30	2.20	27107.41	42817.20
357.	MXY	986	60	73	69	72	2.50	1.30	2.50	27082.43	43007.60
358.	MXY	980	61	71	68	67	3.20	1.30	2.20	27109.00	43116.98
359.	MXY	972	60	74	73	62	3.80	1.30	2.20	26734.81	43787.48
360.	MXY	974	62	74	73	63	3.20	1.00	2.20	26669.26	43783.26
361.	MXY	980	62	73	74	63	2.50	1.60	1.90	26563.75	43787.79
362.	MXY	992	63	71	75	63	2.50	1.30	2.50	26446.67	43805.48
363.	MXY	1002	61	70	77	63	1.90	1.60	2.50	26353.64	43816.34
364.	MXY	1014	61	71	78	63	2.20	1.60	1.90	26258.30	43828.84
365.	MXY	1038	61	70	79	62	1.90	1.60	1.90	26126.69	43856.80
366.	MXY	1058	64	69	80	61	2.20	1.60	1.60	26040.47	43875.83
367.	MXY	1115	66	66	81	61	1.60	1.90	1.90	25986.31	43946.51
368.	MYZ	1212	68	74	55	69	3.80	1.30	1.90	43665.71	57529.88
369.	MYZ	1186	61	74	56	68	3.80	1.90	2.50	43706.78	57781.39
370.	MYZ	1179	57	74	55	66	3.80	1.60	2.20	43798.09	58068.67
371.	MYZ	1178	57	75	56	65	3.50	1.30	2.20	43892.72	58352.29
372.	MYZ	1164	55	77	56	63	4.10	1.60	1.60	43887.35	58517.12
373.	MYZ	1124	61	76	57	64	3.50	1.60	2.50	43654.37	58417.82
374.	MYZ	961	63	67	60	67	2.50	1.30	1.30	42369.07	57189.39
375.	MYZ	955	56	67	60	68	2.50	0.70	1.90	42335.42	57005.10
376.	MYZ	953	57	67	60	69	3.20	1.00	1.60	42305.68	56820.47
377.	MYZ	953	53	67	60	70	3.20	0.70	1.60	42279.27	56644.15
378.	MYZ	955	54	67	58	70	3.20	0.40	1.60	42246.35	56457.77
379.	MYZ	960	53	66	57	71	2.90	0.40	1.60	42216.25	56262.83
380.	MYZ	969	56	64	56	73	2.50	0.40	1.60	42205.03	56063.71
381.	MYZ	980	56	64	56	74	3.20	-0.30	1.60	42201.02	55861.23
382.	MYZ	995	64	63	56	76	2.90	0.00	1.90	42197.08	55641.22
383.	MYZ	1013	57	63	55	77	2.90	0.40	2.20	42189.28	55417.45
384.	MYZ	1036	55	62	54	78	2.90	0.40	1.90	42179.34	55193.06
385.	MYZ	1086	60	61	53	80	2.50	-0.30	2.20	42166.56	54971.25
386.	MYZ	1163	57	60	52	81	2.50	0.00	1.90	42159.47	54755.67
387.	MYZ	2494	61	58	51	84	2.90	-0.30	2.20	42142.27	54158.94
388.	MYZ	2628	60	58	51	84	2.90	-0.30	1.90	42138.57	54147.63
389.	MYZ	2577	56	53	50	73	2.20	0.00	1.90	41458.40	54462.17
390.	MYZ	2286	57	54	51	73	1.90	-0.30	1.90	41391.65	54575.45
391.	MYZ	2040	59	55	53	73	2.90	-0.60	2.20	41327.26	54708.16
392.	MYZ	1871	57	55	53	73	2.20	-0.30	1.90	41250.51	54847.41
393.	MYZ	1727	58	55	54	72	2.20	-0.90	1.90	41172.02	55004.94
394.	MYZ	1610	57	53	55	69	2.20	-0.90	1.60	41085.69	55177.19
395.	MYZ	1526	58	53	57	68	2.20	-0.90	1.60	40989.19	55350.06
396.	MYZ	1399	57	51	58	66	1.90	-0.30	1.30	40965.54	55532.12
397.	MYZ	1294	54	48	61	66	1.30	0.00	1.90	40974.62	55700.03
398.	MYZ	1262	53	48	61	64	0.40	0.00	1.60	40862.59	55869.81
399.	MYZ	1231	55	48	65	63	-0.30	1.30	1.60	40740.72	56050.80
400.	MYZ	1216	51	45	68	60	-0.30	1.60	1.00	40602.93	56220.35

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ATMOSPHERIC NOISE AND FIELD STRENGTH ARE IN DECIBELS PER MICROVOLT PER METER

APPENDIX C

ACCURACY TESTING DATA BASE CROSS CHAIN DATA

Data in this appendix include:

COLUMN	DESCRIPTION
1	Data base point number from 1 through 400
2	ATADS reference latitude in decimal degrees
3	ATADS reference longitude in decimal degrees
4	Atmospheric noise in decibels per microvolt per meter (dB/uV/m)
5	Group repetition interval (GRI) in tens of microseconds (usecs)
6	Master/secondary identifier letter
7	Field strength in decibels per microvolt per meter (dB/uV/m)
8	Time of arrival (TOA) in microseconds (usecs)
9	Envelope-to-cycle discrepancy (ECD) in microseconds (usecs)

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
1	32.368	90.297	60.	9960	M	51.	58808.28	1.90
				9960	W	60.	72743.09	1.90
				7980	X	75.	43434.11	3.50
				7980	Y	85.	55174.83	3.20
				7980	Z	61.	72435.80	2.50
				7980	W	51.	107181.14	1.90
				8970	Y	60.	48898.45	1.60
				8970	Z	75.	62055.75	3.50
2	32.406	90.563	60.	9960	M	50.	58818.34	1.30
				9960	W	60.	72685.50	1.90
				7980	X	74.	43450.17	3.20
				7980	Y	85.	55104.04	2.90
				7980	Z	61.	72314.16	2.20
				7980	W	51.	107191.36	1.60
				8970	Y	60.	48840.86	1.90
				8970	Z	74.	62071.86	3.20
3	32.408	90.632	60.	9960	M	50.	58622.63	1.60
				9960	W	60.	72674.01	1.60
				7980	X	73.	43454.44	3.20
				7980	Y	85.	55086.05	3.20
				7980	Z	60.	72282.19	1.90
				7980	W	51.	107195.34	1.30
				8970	Y	59.	48829.41	1.60
				8970	Z	73.	62076.12	3.20
4	32.426	90.984	57.	9960	M	48.	58844.81	.70
				9960	W	61.	72618.81	1.30
				7980	X	72.	43478.38	3.20
				7980	Y	85.	55005.28	2.90
				7980	Z	61.	72118.48	2.20
				7980	Y	51.	90801.53	2.50
				8970	Y	61.	48774.21	1.30
				8970	Z	72.	62100.06	3.20
5	32.451	91.277	60.	9960	M	48.	58865.73	1.00
				9960	W	62.	72575.23	1.60
				7980	X	72.	43502.69	3.20
				7980	Y	86.	54960.84	3.20
				7980	Z	62.	71991.35	2.20
				7980	W	48.	107238.61	0.00
				8970	Y	61.	48730.61	1.60
				8970	Z	72.	62124.39	3.20
6	32.457	91.352	61.	9960	M	48.	58870.93	1.30
				9960	W	61.	72565.04	1.60
				7980	X	72.	43508.77	3.20
				7980	Y	85.	54952.08	3.20
				7980	Z	62.	71960.76	1.90
				7980	W	48.	107243.88	0.00
				8970	Y	61.	48720.45	1.60
				8970	Z	72.	62130.47	3.20

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GPI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
7	32.489	91.725	58.	9960	Y	47.	58899.05	1.90
				9960	N	61.	72515.41	1.60
				7980	Z	71.	43541.57	3.20
				7980	3	85.	54916.80	3.20
				7980	X	62.	71303.24	2.50
				8970	Z	61.	48670.80	1.60
				8970	3	71.	62162.89	3.20
8	32.512	92.024	55.	9960	Y	46.	58922.58	.70
				9960	N	60.	72479.69	1.30
				7980	Z	70.	43567.90	3.20
				7980	3	84.	54899.80	3.20
				7980	X	63.	71678.29	2.50
				7980	Y	50.	90873.87	2.90
				8970	Z	60.	48635.09	1.60
				8970	3	70.	62189.56	3.20
9	32.522	92.098	55.	9960	Y	46.	58927.96	.70
				9960	N	60.	72470.21	1.60
				7980	Z	70.	43574.34	3.20
				7980	3	84.	54897.80	3.20
				7980	X	63.	71649.35	2.50
				7980	Y	50.	90879.38	2.50
				8970	Z	60.	48625.60	1.60
				8970	3	70.	62196.05	3.20
10	32.574	92.467	56.	9960	Y	46.	58954.13	1.00
				9960	N	60.	72421.23	1.60
				7980	Z	69.	43607.95	2.90
				7980	3	82.	54895.28	2.50
				7980	X	63.	71504.65	2.50
				7980	N	46.	107326.93	1.00
				8970	Z	60.	48576.63	1.90
				8970	3	68.	62229.64	3.20
11	32.612	92.763	57.	9960	Y	45.	58975.73	1.30
				9960	N	59.	72335.68	1.60
				7980	Z	68.	43634.91	3.20
				7980	3	82.	54898.62	3.20
				7980	X	63.	71391.10	2.50
				7980	N	45.	107348.65	.40
				8970	Z	59.	48541.05	1.90
				8970	3	67.	62256.63	3.20
12	32.622	92.836	55.	9960	Y	45.	58981.08	1.30
				9960	N	59.	72377.40	1.60
				7980	Z	67.	43641.51	3.20
				7980	3	82.	54900.13	3.20
				7980	X	63.	71364.22	2.20
				7980	N	45.	107353.92	.40
				8970	Z	59.	48532.80	1.60
				8970	3	67.	62263.21	3.20

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
13	32.672	93.208	56.	9960	Y	45.	59008.73	.70
				9960	N	59.	72336.89	1.90
				7980	Z	67.	43675.73	3.20
				7980	3	80.	54911.76	2.90
				7980	X	64.	71228.31	2.20
				7980	Y	45.	107381.58	.40
				8970	Z	59.	48492.28	1.90
				8970	3	66.	62297.43	3.20
14	32.712	93.507	53.	9960	Y	43.	59032.31	.70
				9960	N	58.	72306.51	1.90
				7980	Z	66.	43704.91	2.50
				7980	3	79.	54925.58	2.50
				7980	X	64.	71119.76	2.20
				7980	Y	47.	90995.97	3.50
				8970	Z	58.	48461.89	1.60
				8970	3	65.	62326.60	2.90
15	32.722	93.583	53.	9960	Y	43.	59037.91	.70
				9960	N	58.	72299.89	1.90
				7980	Z	66.	43711.69	2.90
				7980	3	79.	54929.29	2.90
				7980	X	65.	71095.29	2.50
				7980	Y	47.	91002.22	3.50
				8970	Z	58.	48455.30	1.60
				8970	3	65.	62333.35	2.90
16	32.768	93.967	53.	9960	Y	43.	59070.16	.70
				9960	N	59.	72269.78	2.20
				7980	Z	65.	43749.88	2.90
				7980	3	79.	54951.21	3.20
				7980	X	65.	70965.88	2.50
				7980	Y	47.	91036.95	3.20
				8970	Z	59.	48425.13	2.20
				8970	3	65.	62371.60	2.90
17	32.795	94.306	54.	9960	Y	43.	59101.30	.40
				9960	N	57.	72251.24	1.90
				7980	Z	65.	43784.39	3.20
				7980	3	78.	54972.06	2.90
				7980	X	65.	70852.38	2.50
				7980	Y	46.	91067.80	3.20
				8970	Z	57.	48406.60	1.90
				8970	3	64.	62406.10	3.20
18	32.800	94.372	53.	9960	Y	43.	59107.80	.40
				9960	N	57.	72248.14	2.20
				7980	Z	64.	43791.40	3.20
				7980	3	77.	54976.54	2.90
				7980	X	66.	70830.09	2.50
				7980	Y	46.	91074.09	3.20
				8970	Z	57.	48403.55	2.20
				8970	3	64.	62413.06	3.20

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uv/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uv/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
19	32.828	94.770	53.	9960	Y	42.	59145.38	.40
				9960	Z	55.	72232.55	1.60
				7980	M	63.	43632.41	2.90
				7980	X	77.	55004.30	3.20
				7980	Y	66.	70706.28	2.50
				7980		44.	91110.77	3.20
20	32.837	95.113	55.	7980	M	63.	43870.70	2.90
				7980	X	76.	55030.84	3.20
				7980	Y	66.	70598.21	2.20
				7980		43.	91144.44	3.20
				8970	M	55.	48382.74	1.90
				8970		62.	62492.44	2.90
21	32.836	95.181	54.	7980	M	63.	43878.14	2.90
				7980	X	76.	55035.65	3.20
				7980	Y	66.	70576.06	2.20
				7980		43.	91150.67	3.20
				8970	M	55.	48383.34	1.90
				8970		62.	62499.88	2.90

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
22	30.160	91.741	53.	9960	Y	52.	77452.60	2.50
				9960	N	56.	91618.43	2.50
				7980	W	70.	73267.33	2.50
				7980	X	92.	84306.96	2.50
				7980	Y	68.	100979.93	1.90
				7980	Z	54.	120307.61	2.50
				8970	Y	56.	19799.86	2.50
				8970	Z	70.	32468.98	2.50
23	30.162	91.664	53.	9960	Y	52.	77416.63	2.50
				9960	N	56.	91596.48	2.20
				7980	W	70.	73230.21	2.50
				7980	X	92.	84273.83	2.50
				7980	Y	68.	100987.03	1.90
				7980	Z	54.	120271.22	2.50
				8970	Y	56.	19777.97	2.50
				8970	Z	70.	32431.90	2.50
24	30.180	91.167	55.	9960	Y	54.	77183.00	2.50
				9960	N	56.	91459.67	2.20
				7980	W	72.	72988.65	2.50
				7980	X	96.	84079.11	2.50
				7980	Y	66.	101043.40	1.90
				7980	Z	55.	120035.19	2.50
				8970	Y	56.	19641.23	2.50
				8970	Z	72.	32190.29	2.50
25	30.161	90.802	56.	9960	Y	54.	77008.65	2.90
				9960	N	55.	91366.40	2.50
				7980	W	73.	72805.86	2.50
				7980	X	97.	83987.96	2.50
				7980	Y	66.	101073.01	1.90
				7980	Z	56.	119851.61	2.20
				8970	Y	55.	19547.91	2.20
				8970	Z	73.	32007.54	2.50
26	30.157	90.728	57.	9960	Y	54.	76973.18	2.50
				9960	N	55.	91347.95	2.50
				7980	W	74.	72768.98	2.50
				7980	X	97.	83977.43	2.50
				7980	Y	66.	101079.44	1.90
				7980	Z	56.	119814.46	2.50
				8570	Y	55.	19529.44	2.20
				8570	Z	74.	3.970.63	2.50
27	30.139	90.296	56.	9960	Y	57.	76762.71	3.20
				9960	N	56.	91237.40	2.50
				7980	W	74.	72548.39	2.50
				7980	X	96.	83955.73	2.50
				7980	Y	65.	101117.65	1.60
				7980	Z	57.	119593.66	2.50
				8570	Y	56.	19418.91	2.50
				8570	Z	74.	31752.53	2.50

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
26	30.055	90.122	57.	9960	Y	57.	76682.55	3.20
				9960	N	56.	91214.19	2.50
				7980	M	74.	72458.88	1.90
				7980	W	94.	83974.21	2.20
				7980	X	65.	101114.02	1.90
				7980	Y	57.	119490.06	2.50
				8970	M	56.	19395.61	2.90
				8970	W	74.	31660.59	2.20
29	30.010	90.065	56.	9960	Y	57.	76645.74	3.20
				9960	N	57.	91201.08	2.50
				7980	M	75.	72418.01	2.50
				7980	W	93.	83974.50	2.20
				7980	X	65.	101099.72	1.90
				7980	Y	57.	119440.85	2.50
				8970	M	56.	19382.46	2.50
				8970	W	74.	31619.68	2.50

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
30	29.952	90.029	56.	9960	Y	56.	43978.95	2.20
				9960	N	57.	58555.00	2.50
				7980	Σ	74.	57557.63	2.20
				7980	3	92.	69123.83	2.50
				7980	X	64.	86226.80	1.60
				7980	Y	57.	104549.08	2.50
				8970	Σ	56.	21394.83	2.20
				8970	3	74.	33607.53	2.50
31	30.073	89.586	58.	9960	Y	57.	43641.95	2.20
				9960	N	56.	58296.60	2.20
				7980	Σ	75.	57199.10	2.20
				7980	3	90.	69013.18	1.60
				7980	X	63.	86179.36	2.50
				7980	Y	58.	104234.48	2.20
				8970	Σ	56.	21136.46	1.90
				8970	3	75.	33269.00	2.20
32	30.115	89.539	59.	9960	Y	57.	43597.03	2.20
				9960	N	56.	58254.11	1.90
				7980	Σ	75.	57156.03	2.20
				7980	3	90.	68994.85	2.50
				7980	X	63.	86176.58	1.60
				7980	Y	58.	104200.65	2.20
				8970	Σ	56.	21093.97	1.90
				8970	3	75.	33225.93	2.20
33	30.294	89.200	56.	9960	Y	57.	43362.26	2.20
				9960	N	57.	58062.46	1.60
				7980	Σ	77.	56926.48	2.50
				7980	3	87.	68955.54	2.50
				7980	X	63.	86168.28	1.90
				7980	Y	59.	104005.75	2.20
				8970	Σ	56.	20902.36	1.90
				8970	3	77.	32996.43	2.50
34	30.440	88.820	55.	9960	Y	57.	43150.48	2.20
				9960	N	57.	57901.06	2.20
				7980	Σ	77.	56719.17	2.50
				7980	3	86.	68949.71	1.60
				7980	X	62.	86211.75	2.50
				7980	Y	59.	103837.21	1.90
				8970	Σ	57.	20740.96	1.90
				8970	3	77.	32789.11	2.20
35	30.470	88.815	55.	9960	Y	59.	43107.46	2.50
				9960	N	57.	57868.50	1.90
				7980	Σ	77.	56677.31	2.50
				7980	3	85.	68949.60	2.50
				7980	X	62.	86216.51	1.60
				7980	Y	59.	103802.65	2.20
				8970	Σ	57.	20708.36	2.20
				8970	3	77.	32747.25	2.50

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB>uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB>uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
36	30.659	88.442	55.	9960	M	58.	42859.11	2.20
				9960	Y	57.	57677.46	1.90
				7980	M	78.	56437.39	2.20
				7980	X	83.	68952.03	2.50
				7980	Y	60.	86244.89	1.30
				7980	Z	59.	103609.76	1.90
				8970	Y	57.	20517.26	1.60
				8970	Z	78.	32507.23	2.20
37	30.728	88.092	58.	9960	M	59.	42659.07	2.20
				9960	Y	56.	57554.17	1.90
				7980	M	80.	56236.54	2.50
				7980	X	82.	68971.52	2.50
				7980	Y	58.	86266.77	1.30
				7980	Z	60.	103433.34	2.20
				8970	Y	56.	20394.01	2.20
				8970	Z	80.	32306.50	2.50
38	30.739	88.022	57.	9960	M	58.	42615.55	2.20
				9960	Y	56.	57530.43	1.90
				7980	M	80.	56192.05	2.20
				7980	X	81.	68977.20	2.20
				7980	Y	58.	86271.56	1.00
				7980	Z	60.	103393.00	2.20
				8970	Y	56.	20370.31	2.20
				8970	Z	80.	32261.92	2.20
39	30.785	87.585	62.	9960	M	60.	42375.98	1.60
				9960	Y	55.	57402.86	1.60
				7980	M	82.	55946.43	2.20
				7980	X	80.	69009.79	2.50
				7980	Y	57.	86299.75	1.60
				7980	Z	60.	103171.73	2.20
				8970	Y	55.	20242.72	1.60
				8970	Z	81.	32016.40	2.20
40	30.805	87.218	63.	7980	M	83.	55736.47	2.20
				7980	X	78.	69039.37	2.20
				7980	Y	56.	86323.33	.70
				7980	Z	59.	102982.78	1.60
				7980	Z	61.	119784.48	1.90
				8970	Y	56.	20146.04	1.60
				8970	Z	83.	31808.33	2.20
41	30.798	87.146	64.	7980	M	84.	55696.97	2.20
				7980	X	78.	69045.51	2.20
				7980	Y	55.	86326.91	.40
				7980	Z	59.	102943.01	1.90
				7980	Z	61.	119745.71	2.20
				8970	Y	56.	20130.87	1.60
				8970	Z	83.	31766.85	2.20

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
42	30.790	86.702	63.	7980	M	87.	55450.26	2.50
				7980	Z	76.	69082.96	2.20
				7980	X	53.	86353.41	.70
				7980	Y	61.	102715.61	2.20
				7980	Z	63.	119515.31	1.60
				8970	M	56.	20037.03	1.90
				8970	Z	87.	31523.18	2.50
43	30.825	86.329	61.	7980	M	90.	55249.40	2.50
				7980	Z	74.	69115.92	1.60
				7980	X	53.	86383.23	.70
				7980	Y	63.	102537.01	2.50
				7980	Z	63.	119318.54	1.90
				8970	M	56.	19949.00	1.30
				8970	Z	90.	31319.38	2.20
44	30.832	86.255	62.	7980	M	90.	55207.78	2.20
				7980	Z	74.	69122.75	1.90
				7980	X	53.	86384.48	.70
				7980	Y	63.	102501.03	2.50
				7980	Z	63.	119278.31	1.60
				8970	M	56.	19931.32	1.30
				8970	Z	90.	31277.71	2.50

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45	36.295	87.337	58.	9960	M	55.	21867.86	1.90
				9960	Y	52.	63233.06	1.60
				9960	N	73.	76504.33	1.90
				7980	E3	66.	8686.53	1.90
				7980	N	66.	21950.05	2.50
				7980	E3	52.	71341.55	.40
				8970	N	73.	26789.83	1.90
				8970	E3	66.	41904.91	2.20
46	36.185	86.962	57.	9960	M	54.	21727.44	2.50
				9960	Y	53.	63031.21	1.30
				9960	N	73.	76468.10	1.90
				7980	E3	67.	8733.03	1.90
				7980	N	65.	21889.78	1.90
				7980	E3	53.	71139.43	1.30
				8970	N	73.	26753.58	1.90
				8970	E3	67.	41749.45	1.90
47	36.174	86.894	57.	9960	M	55.	21703.29	2.50
				9960	Y	53.	62996.95	0.00
				9960	N	73.	76462.96	1.90
				7980	E3	67.	8706.52	1.90
				7980	N	64.	21882.45	1.90
				7980	E3	53.	71105.15	1.60
				8970	N	72.	26748.44	1.60
				8970	E3	66.	41724.91	2.20
48	36.071	86.372	57.	9960	M	55.	21521.28	2.50
				9960	Y	54.	62740.18	1.30
				9960	N	72.	76431.36	1.90
				7980	E3	66.	8539.08	1.90
				7980	N	65.	21843.91	2.50
				7980	E3	53.	70848.44	1.30
				8970	N	72.	26716.87	1.90
				8970	E3	66.	41555.48	1.60
49	35.982	85.914	58.	9960	M	55.	21365.71	2.20
				9960	Y	54.	62514.81	1.60
				9960	N	71.	76416.45	1.90
				7980	E3	66.	8400.36	1.60
				7980	N	65.	21819.33	2.20
				7980	E3	54.	70623.05	1.90
				8970	N	71.	26701.90	1.90
				8970	E3	66.	41416.76	1.90
50	35.969	85.841	58.	9960	M	55.	21342.16	2.20
				9960	Y	54.	62480.22	1.60
				9960	N	71.	76415.33	1.90
				7980	E3	66.	8380.22	1.60
				7980	N	65.	21816.56	2.20
				7980	E3	54.	70588.43	1.90
				8970	N	71.	26700.81	1.90
				8970	E3	66.	41396.57	1.60

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
51	35.856	85.305	57.	9960	M	54.	21169.18	2.20
				9960	Y	56.	62218.25	1.60
				9960	N	69.	76415.19	1.60
				7980	M	67.	8232.21	1.60
				7980	W	62.	21798.63	1.90
				7980	N	56.	70026.51	1.90
				8970	M	69.	26700.68	1.60
				8970	W	67.	41248.61	1.60
52	35.798	84.770	61.	9960	M	51.	20590.03	2.20
				9960	Y	56.	61962.50	1.90
				9960	N	67.	76110.53	1.60
				7980	M	68.	8116.79	2.20
				7980	W	60.	21701.30	1.60
				7980	N	57.	70070.87	1.90
				8970	M	67.	26696.01	1.60
				8970	W	68.	41153.19	2.20
53	35.932	84.297	57.	9960	M	51.	20777.10	1.90
				9960	Y	58.	61754.03	1.30
				9960	N	66.	76356.23	1.60
				7980	M	63.	8099.72	1.30
				7980	W	59.	21859.40	2.20
				7930	N	58.	69862.35	1.30
				8970	M	66.	26641.68	1.30
				8970	W	63.	41116.13	1.30
54	35.964	84.228	55.	9960	M	51.	20743.30	1.90
				9960	Y	59.	61725.86	1.60
				9960	N	66.	76345.01	1.60
				7980	M	63.	8101.76	1.00
				7980	W	59.	21370.01	1.90
				7980	N	59.	69334.06	1.60
				8970	M	66.	26630.44	1.30
				8970	W	63.	41118.18	1.30
55	35.935	83.893	53.	9960	M	50.	20610.97	1.00
				9960	Y	61.	61551.99	0.00
				9960	N	66.	76331.95	1.30
				7980	M	61.	8040.03	1.30
				7980	W	59.	21868.63	1.90
				7980	N	61.	69660.24	0.00
				8970	M	66.	26617.37	1.60
				8970	W	61.	41056.45	1.60
56	35.830	83.366	53.	9960	M	48.	20459.18	0.00
				9960	Y	62.	61297.40	0.00
				9960	N	64.	76363.63	1.90
				7980	M	59.	7948.16	.70
				7980	W	52.	21872.51	.40
				7980	N	62.	69405.64	-.30
				8970	M	63.	26649.10	1.90
				8970	W	59.	40964.51	.70

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF uSECS	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN uSECS	ECD IN uSECS
57	35.709	82.914	55.	9960	M	48.	20340.30	1.30
				9960	Y	65.	61073.00	1.30
				9960	Z	63.	76402.71	1.60
				7980	M	59.	7871.65	1.00
				7980	W	51.	21874.87	0.00
				7980	Z	65.	69181.26	1.30
				8970	M	62.	26688.18	1.90
				8970	Z	59.	40688.03	.70
58	35.690	82.848	61.	9960	M	48.	20322.99	1.30
				9960	Y	66.	61073.63	1.00
				9960	Z	62.	76403.62	1.60
				7980	M	59.	7860.76	.70
				7980	W	50.	21875.31	1.30
				7980	Z	66.	69147.91	1.30
				8970	M	62.	26694.05	1.90
				8970	Z	59.	40877.13	.70
59	35.511	82.363	53.	9960	M	44.	20210.21	1.60
				9960	Y	69.	60783.80	1.60
				9960	Z	60.	76461.13	1.00
				7980	M	62.	7771.13	1.30
				7980	W	45.	21869.25	1.30
				7980	Z	69.	68892.08	1.60
				8970	M	60.	26746.55	1.30
				8970	Z	62.	40787.56	1.30
60	34.779	83.162	56.	9960	Y	68.	60626.28	1.60
				9960	N	57.	76210.38	1.00
				7980	Z	69.	7101.31	2.20
				7980	Y	56.	21205.53	.40
				7980	N	55.	53792.45	3.80
				7980	Z	68.	68734.54	1.60
				8970	Y	56.	26495.86	.70
				8970	Z	69.	40117.68	1.90
61	34.637	83.365	61.	9960	Y	67.	60617.66	1.00
				9960	N	52.	76156.00	.70
				7980	Z	70.	6961.98	1.90
				7980	Y	57.	21059.01	1.00
				7980	N	55.	53700.20	1.90
				7980	Z	68.	68725.88	1.30
				8970	Y	51.	26441.56	1.00
				8970	Z	69.	39978.37	1.90
62	34.588	83.417	64.	9960	Y	67.	60612.88	1.00
				9960	N	53.	76145.06	.70
				7980	Z	70.	6919.76	2.20
				7980	Y	58.	21017.12	1.00
				7980	N	56.	53669.70	1.90
				7980	Z	67.	68721.12	1.30
				8970	Y	52.	26430.43	1.00
				8970	Z	70.	39936.17	1.60

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF uSECS	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN uSECS	ECD IN uSECS
63	33.194	84.664	62.	9960	Y	63.	22356.25	1.90
				9960	Z	56.	37796.85	1.90
				7980	X	79.	5806.01	2.90
				7980	3	65.	19534.98	2.50
				7980	Y	58.	52887.73	2.90
				7980	Z	63.	68632.88	1.60
				8970	X	56.	26240.66	2.20
				8970	3	79.	38622.41	2.90
64	32.969	84.810	69.	9960	Y	63.	22355.09	1.60
				9960	Z	56.	37791.11	1.90
				7980	X	81.	5645.91	3.50
				7980	3	66.	19790.91	2.90
				7980	Y	59.	52774.19	2.90
				7980	Z	63.	68621.72	1.60
				8970	X	55.	26234.85	2.20
				8970	3	81.	38662.30	3.20
65	32.730	84.940	73.	9960	Y	62.	22342.83	1.60
				9960	Z	55.	37794.28	1.90
				7980	X	83.	5480.90	3.80
				7980	3	68.	19650.18	2.90
				7980	Y	61.	52654.81	2.90
				7980	Z	62.	68609.51	1.60
				8970	X	55.	26238.13	2.20
				8970	3	83.	38497.26	3.80
66	32.674	84.978	72.	9960	Y	62.	22342.50	1.60
				9960	Z	55.	37792.06	1.60
				7980	X	84.	5441.47	3.20
				7980	3	69.	19613.91	2.50
				7980	Y	61.	52628.62	2.90
				7980	Z	63.	68609.05	1.30
				8970	X	55.	26236.08	1.90
				8970	3	84.	38457.88	3.20
67	32.559	85.311	66.	9960	Y	64.	22364.71	1.60
				9960	Z	56.	37720.92	1.00
				7980	X	85.	5306.10	2.90
				7980	3	71.	19412.10	2.50
				7980	Y	62.	52570.66	3.20
				7980	Z	64.	68651.35	1.90
				8970	X	55.	26164.80	1.30
				8970	3	85.	38322.48	2.90
68	32.465	85.690	65.	9960	Y	62.	22398.88	1.60
				9960	Z	56.	37641.64	.70
				7980	X	86.	5204.07	2.90
				7980	3	72.	19200.28	2.50
				7980	Y	61.	52534.70	3.20
				7980	Z	62.	68665.56	1.30
				8970	X	55.	26085.50	.70
				8970	3	86.	38220.46	2.90

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN db/uv/m	GPI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH db/uv/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
69	32.349	85.995	67.	9960	Y	62.	22429.56	1.60
				9960	N	57.	37092.20	2.70
				7980	E	86.	5126.64	2.90
				7980	3	73.	19019.89	2.90
				7980	Y	61.	52497.88	2.50
				7980	N	62.	68696.21	1.60
				8970	E	56.	26036.01	1.30
				8970	3	86.	38143.03	2.90
70	32.322	86.057	69.	9960	Y	62.	22435.66	1.60
				9960	N	57.	37584.75	2.70
				7980	E	86.	5111.75	3.20
				7980	3	73.	18963.77	2.50
				7980	Y	61.	52489.34	2.90
				7980	N	62.	68702.30	1.60
				8970	E	56.	26028.60	1.00
				8970	3	86.	38128.21	3.20
71	32.226	86.443	69.	9960	Y	62.	22475.25	1.60
				9960	N	59.	37518.06	1.30
				7980	E	85.	5064.71	3.20
				7980	3	74.	18767.70	2.90
				7980	Y	60.	52465.38	2.90
				7980	N	62.	68741.89	1.60
				8970	E	58.	25961.88	1.30
				8970	3	85.	39081.12	3.20
72	32.258	86.368	68.	9960	Y	60.	22510.65	1.60
				9960	N	59.	37406.41	1.60
				7980	E	84.	5079.16	3.20
				7980	3	75.	18560.78	2.90
				7980	Y	60.	52484.81	2.90
				7980	N	60.	68777.26	1.60
				8970	E	58.	25850.30	2.20
				8970	3	84.	38095.61	3.20
73	32.288	87.206	66.	9960	Y	58.	22537.16	1.30
				9960	N	59.	37317.28	1.60
				7980	E	83.	5095.84	3.20
				7980	3	76.	18394.26	2.50
				7980	Y	59.	52500.45	2.90
				7980	N	60.	68803.79	1.60
				8970	E	58.	25761.17	2.20
				8970	3	83.	38112.25	3.20
74	32.293	87.273	65.	9960	Y	58.	22542.25	1.30
				9960	N	59.	37300.21	1.60
				7980	E	82.	5099.46	3.20
				7980	3	76.	18361.83	2.50
				7980	Y	59.	52503.50	2.90
				7980	N	53.	68308.90	1.60
				8970	E	58.	25744.07	2.20
				8970	3	82.	38115.88	3.20

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uv/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uv/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
75	32.325	87.667	67.	9960	Y	57.	22571.13	1.60
				9960	N	60.	37200.47	1.30
				7980	Σ	81.	5121.92	2.90
				7980	3	77.	18170.85	2.50
				7980	Y	53.	52521.25	2.50
				7980	N	57.	68837.78	1.30
				8970	Σ	59.	25644.33	2.20
				8970	3	81.	38138.35	2.90
76	32.354	88.059	64.	9960	Y	55.	22599.95	1.30
				9960	N	59.	37107.70	1.90
				7980	Σ	80.	5145.88	2.90
				7980	3	78.	17984.59	2.50
				7980	X	54.	35380.18	1.90
				7980	N	55.	68866.57	1.00
				8970	Σ	58.	25550.62	2.20
				8970	3	80.	38162.56	2.90
77	32.352	88.335	63.	9960	Y	55.	22626.50	1.00
				9960	N	61.	37043.00	1.90
				7980	Σ	79.	5164.37	3.20
				7980	3	78.	17827.79	2.50
				7980	X	54.	35220.40	1.90
				7980	N	54.	68893.06	1.00
				8970	Σ	60.	25485.62	2.50
				8970	3	79.	38180.81	3.20
78	32.361	88.450	64.	9960	Y	54.	22630.86	1.00
				9960	N	61.	37027.91	1.60
				7980	Σ	79.	5169.37	3.20
				7980	3	79.	17800.03	2.50
				7980	X	54.	35191.52	1.60
				7980	N	54.	68897.45	1.30
				8970	Σ	60.	25471.76	1.90
				8970	3	79.	38185.80	3.20
79	32.391	88.755	62.	9960	Y	53.	22653.38	1.00
				9960	N	61.	36955.17	1.60
				7980	Σ	78.	5193.70	2.90
				7980	3	79.	17660.39	2.20
				7980	X	55.	35046.14	1.30
				7980	N	53.	68920.07	1.30
				8970	Σ	60.	25399.05	1.90
				8970	3	78.	38210.11	2.90
80	32.406	89.142	63.	9960	Y	53.	22683.45	1.00
				9960	N	61.	36981.87	1.30
				7980	Σ	77.	5220.71	3.20
				7980	3	80.	17493.06	2.50
				7980	X	57.	34860.83	2.20
				7980	N	53.	68950.08	1.00
				8970	Σ	60.	25325.71	1.60
				8970	3	77.	38237.17	3.20

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
81	32.422	89.495	62.	9960	Y	52.	22717.29	1.60
				9960	N	61.	36824.27	1.60
				7980	M	76.	5253.89	3.20
				7980	W	82.	17358.38	2.50
				7980	X	58.	34703.73	1.90
				7980	N	52.	68983.95	1.30
				8970	M	61.	25268.12	1.90
				8970	W	76.	38270.33	3.20
82	32.426	89.572	60.	9960	Y	52.	22726.45	1.60
				9960	N	61.	36813.59	1.90
				7980	M	76.	5262.72	3.20
				7980	W	82.	17330.70	2.50
				7980	X	58.	34669.83	1.90
				7980	N	52.	68993.09	1.60
				8970	M	60.	25257.45	1.90
				8970	W	76.	38279.13	3.20

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
83	30.732	84.918	72.	9960	Y	66.	91040.91	2.20
				9960	N	53.	106924.20	1.00
				7980	M	101.	54674.06	2.50
				7980	3	70.	69248.70	2.20
				7980	Y	66.	101834.89	2.90
				7980	N	66.	118618.75	1.90
				8970	M	53.	19732.76	.70
				8970	3	101.	30743.97	2.50
84	30.690	84.744	68.	9960	Y	67.	90963.31	1.90
				9960	N	53.	106912.15	1.00
				7980	M	98.	54684.24	2.50
				7980	3	70.	69264.86	2.20
				7980	Y	67.	101744.32	2.90
				7980	N	67.	118541.15	1.90
				8970	M	53.	19720.73	1.30
				8970	3	98.	30754.14	2.50
85	30.613	84.438	63.	9960	Y	69.	90852.83	2.20
				9960	N	52.	106900.25	.70
				7980	M	94.	54708.45	2.20
				7980	3	69.	69288.70	2.20
				7980	Y	67.	101608.16	2.90
				7980	N	68.	118430.69	2.20
				8970	M	52.	19708.88	1.00
				8970	3	94.	30777.38	2.20
86	30.549	84.041	60.	9960	Y	68.	90647.50	2.20
				9960	N	51.	106863.27	1.00
				7980	M	90.	54748.10	2.50
				7980	3	68.	69336.42	2.20
				7980	Y	68.	101384.73	2.90
				7980	N	68.	118225.31	2.20
				8970	M	51.	19672.50	1.00
				8970	3	90.	30817.52	2.50
87	30.544	83.767	59.	9960	Y	69.	90521.91	2.20
				9960	N	51.	106832.97	1.00
				7980	M	88.	54771.66	2.50
				7980	3	67.	69365.88	2.20
				7980	Y	69.	101265.46	2.90
				7980	N	69.	118099.75	2.00
				8970	M	51.	19641.48	1.00
				8970	3	88.	30841.56	2.50
88	30.540	83.584	56.	9960	Y	69.	90435.77	1.90
				9960	N	51.	106812.86	1.30
				7980	M	87.	54789.01	2.50
				7980	3	67.	69386.31	2.20
				7980	Y	69.	101184.72	2.90
				7980	N	69.	118013.58	1.90
				8970	M	51.	19621.41	1.30
				8970	3	97.	30858.90	2.50

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
89	30.534	83.402	57.	9960	Y	70.	90352.25	1.90
				9960	N	51.	106794.72	1.30
				7980	Z	86.	54807.06	2.50
				7980	3	66.	69406.59	2.50
				7980	Y	70.	101105.67	2.50
				7980	N	70.	117930.13	1.90
				8970	Z	51.	19603.23	1.00
				8970	3	86.	30876.96	2.50
90	30.513	83.131	57.	9960	Y	70.	90231.60	1.90
				9960	N	52.	106773.50	.70
				7980	Z	85.	54836.00	2.50
				7980	3	66.	69437.28	2.50
				7980	Y	71.	100986.72	2.90
				7980	N	70.	117809.44	1.60
				8970	Z	51.	19582.05	1.00
				8970	3	85.	30905.91	2.50
91	30.516	82.949	56.	9960	Y	69.	90149.01	1.60
				9960	N	51.	106755.25	.70
				7980	Z	84.	54854.11	2.50
				7980	3	66.	69457.43	2.50
				7980	Y	71.	100914.22	3.20
				7980	N	70.	117726.72	1.90
				8970	Z	51.	19563.75	1.00
				8970	3	84.	30924.05	2.50
92	30.542	82.677	58.	9960	Y	70.	90021.72	1.90
				9960	N	50.	106721.20	1.30
				7980	Z	83.	54879.86	2.90
				7980	3	65.	69487.00	2.50
				7980	Y	71.	100816.88	3.20
				7980	N	70.	117599.53	1.90
				8970	Z	50.	19529.65	1.00
				8970	3	83.	30949.77	2.90
93	30.666	82.535	59.	9960	Y	70.	89898.05	1.90
				9960	N	50.	106641.58	1.00
				7980	Z	82.	54862.91	2.50
				7980	3	64.	69476.70	2.20
				7980	Y	70.	100770.47	3.20
				7980	N	70.	117475.90	1.90
				8970	Z	50.	19450.26	1.30
				8970	3	82.	30934.84	2.20
94	30.818	82.580	61.	9960	Y	70.	89835.31	1.90
				9960	N	50.	106548.53	1.00
				7980	Z	82.	54805.73	2.90
				7980	3	64.	69424.35	2.50
				7980	Y	70.	100788.19	3.20
				7980	N	70.	117413.14	1.90
				8970	Z	50.	19360.19	1.30
				8970	3	82.	30877.44	2.90

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DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
95	31.195	82.5?1	60.	9960	Y	72.	89656.15	1.90
				9960	M	50.	106330.44	1.00
				7980	X	82.	54716.35	2.50
				7980	W	64.	69336.56	2.20
				7980	Y	70.	100819.78	3.20
				7980	M	72.	117234.01	2.20
				8970	X	50.	19139.07	1.00
				8970	W	82.	30786.28	2.50
96	31.442	82.529	62.	9960	Y	72.	89534.25	2.20
				9960	M	50.	106195.08	1.00
				7980	X	82.	54683.23	2.90
				7980	W	65.	69296.16	2.50
				7980	Y	69.	100836.50	3.20
				7980	M	72.	117112.10	2.20
				8970	X	50.	19003.78	1.30
				8970	W	82.	30753.20	2.90
97	31.593	82.478	63.	9960	Y	73.	89454.42	1.90
				9960	M	50.	106113.16	.40
				7980	X	81.	54672.19	3.20
				7980	W	66.	69277.75	2.90
				7980	Y	68.	100844.55	2.90
				7980	M	73.	117032.26	1.90
				8970	X	50.	18921.85	1.00
				8970	W	81.	30742.15	3.20
98	31.799	82.339	61.	9960	Y	74.	89320.71	2.20
				9960	M	51.	106008.45	.40
				7980	X	81.	54680.63	2.90
				7980	W	66.	69274.18	2.90
				7980	Y	69.	100841.40	3.20
				7980	M	74.	116898.48	2.20
				8970	X	51.	18816.90	.70
				8970	W	81.	30750.56	2.90
99	31.936	82.241	60.	9960	Y	74.	89228.81	1.90
				9960	M	51.	105938.63	.40
				7980	X	81.	54689.90	2.90
				7980	W	65.	69274.30	3.20
				7980	Y	69.	100840.00	1.90
				7980	M	74.	116806.68	1.90
				8970	X	51.	18747.30	1.00
				8970	W	80.	30759.83	2.50
100	32.189	82.015	57.	9960	Y	75.	89050.09	2.20
				9960	M	51.	105817.78	1.00
				7980	X	80.	54717.92	2.90
				7980	W	65.	69285.26	2.50
				7980	Y	66.	100831.46	2.50
				7980	M	75.	116627.92	2.20
				8970	X	51.	18626.41	1.00
				8970	W	80.	30787.98	2.90

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uv/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uv/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
101	38.725	82.456	57.	9960	M	67.	15768.60	3.20
				9960	Y	58.	58020.23	.70
				9960	Z	70.	72259.87	1.30
				7980	W	49.	56128.97	-1.80
				7980	X	58.	116892.66	.40
				8970	Z	70.	34341.08	1.60
				8970	3	49.	50176.78	-1.30
				8970	X	67.	66174.15	3.20
102	38.701	82.709	56.	9960	M	66.	15771.41	3.20
				9960	Y	58.	58005.50	.70
				9960	Z	71.	72149.96	1.60
				7980	W	49.	56051.75	-1.20
				7980	X	58.	116877.94	.40
				8970	Z	70.	34231.18	1.90
				8970	3	50.	50099.77	-1.90
				8970	X	66.	66176.94	3.20
103	38.684	82.864	55.	9960	M	65.	15773.75	2.90
				9960	Y	58.	57996.24	1.00
				9960	Z	71.	72075.26	1.60
				7980	W	50.	55999.54	-1.50
				7980	X	58.	116868.68	.40
				8970	Z	71.	34156.53	1.90
				8970	3	50.	50047.63	-1.60
				8970	X	65.	66179.31	2.90
104	38.666	83.102	57.	9960	M	65.	15776.42	2.90
				9960	Y	57.	57985.63	.70
				9960	Z	71.	71959.86	1.30
				7980	W	50.	55923.61	-1.80
				7980	X	57.	116858.13	-1.30
				8970	Z	71.	34041.11	-1.60
				8970	3	50.	49971.37	-1.90
				8970	X	65.	66181.96	2.90
105	38.666	83.263	55.	9960	M	64.	15776.61	2.50
				9960	Y	57.	57983.08	.40
				9960	Z	72.	71880.68	1.30
				7980	W	51.	55877.58	-1.50
				7980	X	57.	116855.60	0.00
				8970	Z	72.	33961.91	-1.60
				8970	3	51.	49925.51	-1.20
				8970	X	64.	66182.16	2.50
106	38.665	83.508	59.	9960	M	64.	15777.93	2.90
				9960	Y	56.	57981.21	-.30
				9960	Z	74.	71763.11	1.60
				7980	W	52.	55811.16	-1.50
				7980	X	56.	116853.75	0.00
				8970	Z	73.	33844.33	1.90
				8970	3	52.	49859.19	-1.90
				8970	X	64.	66183.48	3.50

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
107	38.666	83.687	56.	9960	M	64.	15779.60	2.90
				9960	Y	56.	57981.61	-.30
				9960	Z	74.	71676.51	1.60
				7980	M	55.	55763.85	-1.20
				7980	W	56.	116854.10	-1.30
				8970	Z	73.	33757.77	1.90
				8970	W	55.	49811.81	-.60
				8970	X	64.	66185.15	3.20
108	38.663	83.936	60.	9960	M	64.	15786.40	2.90
				9960	Y	56.	57984.56	-.30
				9960	Z	75.	71561.32	1.90
				7980	M	55.	55702.18	.40
				7980	W	56.	116857.07	.40
				8970	Z	74.	33642.57	1.90
				8970	W	56.	49750.27	.70
				8970	X	64.	66191.93	3.20
109	38.664	84.116	65.	9960	M	63.	15792.61	3.20
				9960	Y	56.	57989.92	0.00
				9960	Z	75.	71477.68	1.60
				7980	M	56.	55660.27	.70
				7980	W	56.	116862.31	0.00
				8970	Z	75.	33558.87	2.20
				8970	W	56.	49708.28	1.00
				8970	X	63.	66198.15	3.20
110	38.664	84.299	67.	9960	M	63.	15798.97	2.90
				9960	Y	56.	57995.91	0.00
				9960	Z	76.	71394.99	1.90
				7980	M	56.	55620.00	.70
				7980	W	56.	116868.48	0.00
				8970	Z	76.	33476.26	2.20
				8970	W	56.	49667.97	1.00
				8970	X	63.	66204.53	3.20
111	38.654	84.573	56.	9960	M	63.	15811.89	2.90
				9960	Y	55.	58002.92	.40
				9960	Z	77.	71273.96	2.20
				7980	M	57.	55557.51	1.30
				7980	W	55.	116875.40	.40
				8970	Z	76.	33355.25	2.50
				8970	W	58.	49605.36	1.90
				8970	X	63.	66217.44	2.90
112	38.646	84.851	58.	9960	M	63.	15826.31	2.90
				9960	Y	55.	58012.38	.40
				9960	Z	78.	71154.51	1.90
				7980	M	58.	55498.35	1.30
				7980	W	54.	116884.83	.40
				8970	Z	77.	33235.72	2.50
				8970	W	58.	49546.30	1.60
				8970	X	62.	66231.87	3.20

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
113	38.636	85.038	57.	9960	M	62.	15837.53	2.50
				9960	Y	55.	58019.34	.40
				9960	Z	78.	71075.23	2.20
				7980	W	58.	55458.56	1.60
				7980	N	55.	116891.79	.40
				8970	Z	78.	33156.50	2.20
				8970	3	58.	49506.59	1.60
				8970	X	62.	66243.06	2.90
114	38.625	85.227	57.	9960	M	62.	15849.36	2.90
				9960	Y	54.	58026.28	.70
				9960	Z	79.	70998.20	1.90
				7980	W	59.	55419.66	1.90
				7980	N	54.	116898.71	0.00
				8970	Z	78.	33079.48	2.20
				8970	3	59.	49467.61	2.20
				8970	X	62.	66254.89	2.50
115	38.605	85.512	62.	9960	M	62.	15869.40	2.50
				9960	Y	54.	58038.12	.40
				9960	Z	80.	70883.38	2.20
				7980	W	58.	55361.51	1.90
				7980	N	54.	116910.62	-.30
				8970	Z	79.	32964.67	2.20
				8970	3	58.	49409.51	1.60
				8970	X	61.	66274.96	2.90
116	38.594	85.692	57.	9960	M	61.	15880.08	2.50
				9960	Y	53.	59044.36	0.00
				9960	Z	80.	70811.06	2.20
				7980	W	59.	55324.64	1.90
				7980	N	53.	116916.73	-.30
				8970	Z	80.	32892.28	2.20
				8970	3	59.	49372.62	1.60
				8970	X	61.	66285.63	2.50
117	38.581	85.975	59.	9960	M	60.	15898.86	2.50
				9960	Y	52.	58058.33	.40
				9960	Z	80.	70703.81	1.90
				7980	W	58.	55273.34	2.20
				7980	N	52.	116930.81	-.30
				8970	Z	80.	32785.01	2.20
				8970	3	58.	49321.33	2.20
				8970	X	60.	66304.38	2.50
118	38.570	86.462	64.	9960	M	60.	15932.75	2.90
				9960	Y	52.	58090.19	0.00
				9960	Z	82.	70533.76	1.90
				7980	W	58.	55198.51	1.30
				7980	N	52.	116962.63	0.00
				8970	Z	82.	32615.00	2.20
				8970	3	57.	49246.53	1.90
				8970	X	60.	66338.30	2.50

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
119	38.547	86.959	64.	9960	M	59.	15973.06	2.50
				9960	Y	52.	58124.36	1.30
				9960	N	83.	70393.21	1.90
				7980	M	59.	55127.68	1.90
				7980	N	51.	116997.00	0.00
				8970	M	83.	32474.48	2.20
				8970	3	58.	49175.63	2.20
				8970	X	59.	66378.53	2.50
120	38.540	87.260	64.	9960	M	58.	15996.76	2.50
				9960	Y	51.	58148.38	1.30
				9960	N	84.	70325.19	2.20
				8970	M	83.	32406.45	2.20
				8970	3	59.	49141.25	2.50
				8970	X	58.	66402.28	2.50
121	38.522	87.660	67.	9960	M	59.	16031.35	2.90
				9960	Y	51.	58180.40	0.00
				9960	N	84.	70259.42	1.90
				7980	M	60.	55046.31	2.20
				7980	3	61.	68013.56	3.20
				8970	M	83.	32340.63	2.20
				8970	3	60.	49094.31	2.50
				8970	X	58.	66436.86	2.50
122	38.504	87.952	62.	9960	M	58.	16056.52	2.90
				9960	Y	51.	58202.21	1.30
				9960	N	84.	70228.93	1.90
				7980	M	60.	55013.75	2.20
				7980	3	61.	67929.89	2.50
				8970	M	83.	32310.13	2.20
				8970	3	60.	49061.03	2.20
				8970	X	58.	66462.10	2.50

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
123	37.078	88.937	57.	9960	M	54.	22414.66	2.50
				9960	W	76.	76648.90	2.20
				7980	W	63.	9702.81	1.90
				7980	X	67.	22398.54	2.50
				3970	M	76.	26934.41	2.20
				8970	X	63.	42719.19	2.20
				8970	X	54.	61024.45	2.20
				3970	Y	48.	78117.64	.70
124	36.906	88.689	58.	9960	M	55.	22330.98	2.50
				9960	W	75.	76623.93	2.20
				7980	M	63.	9551.59	1.90
				7980	X	66.	22298.08	1.90
				8970	M	75.	26909.43	1.90
				3970	X	63.	42567.98	2.20
				8970	X	54.	60940.81	2.50
				8970	Y	48.	78142.38	.70
125	36.778	88.541	60.	9960	M	55.	22285.07	2.50
				9960	W	75.	76617.92	1.90
				7980	M	64.	9451.15	2.20
				7980	X	66.	22227.56	2.20
				6970	M	75.	26503.41	1.90
				8970	X	64.	42467.58	2.20
				8970	X	55.	60894.90	1.90
				8970	Y	47.	78161.82	.40
126	36.600	88.308	56.	9960	M	54.	22211.62	2.20
				9960	W	74.	76608.03	1.90
				7980	M	64.	9301.62	1.90
				7980	X	66.	22128.69	2.50
				8970	M	74.	26893.50	1.90
				8970	X	64.	42318.00	1.90
				8970	X	54.	60821.34	2.20
				8970	X	47.	78188.28	-.30
127	36.491	88.146	54.	9960	M	54.	22159.85	2.20
				9960	W	73.	76600.30	1.60
				7980	M	64.	9206.08	1.90
				7980	X	67.	22069.66	2.50
				8970	M	73.	26985.77	1.90
				8970	X	64.	42222.47	1.90
				8970	X	54.	60769.66	2.50
128	36.361	87.887	58.	9960	M	54.	22075.40	1.90
				9960	Y	50.	63498.75	.40
				9960	W	73.	76582.76	1.30
				7980	M	64.	9071.06	1.90
				7980	X	68.	21995.81	2.90
				8970	M	73.	26867.13	1.90
				8970	X	64.	42085.06	1.90
				8970	X	54.	60682.56	2.20

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
129	36.332	87.666	59.	9960	M	54.	21992.14	1.90
				9960	Y	51.	63391.84	.40
				9960	Z	73.	76549.54	1.90
				7930	M	65.	8996.08	1.90
				7930	3	67.	21975.41	2.50
				8970	M	73.	26835.03	1.90
				8970	3	65.	42012.53	1.90
				8970	X	54.	60601.91	1.90

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
130	38.193	89.795	58.	9960	M	55.	16250.31	2.90
				9960	W	78.	70286.75	1.90
				7980	M	60.	54794.75	2.50
				7980	W	64.	67373.25	2.90
				8970	M	78.	32367.96	2.20
				8970	W	60.	48842.74	2.20
				8970	X	55.	66655.94	2.50
				8970	Y	52.	83295.35	1.00
131	38.401	90.116	57.	9960	M	55.	16219.10	1.90
				9960	W	78.	70231.14	1.30
				7980	M	60.	54822.25	2.50
				7980	W	64.	67349.86	3.50
				8970	M	77.	32312.32	1.30
				8970	W	60.	48870.25	2.50
				8970	X	55.	66624.62	1.90
				8970	Y	53.	83109.92	1.00

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uv/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uv/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
132	38.795	90.377	59.	9960	M	55.	62992.44	2.20
				9960	W	79.	116990.35	1.30
				7980	X	60.	71639.03	2.90
				7980	Y	63.	84143.50	2.50
				8970	M	78.	58767.79	1.30
				8970	W	60.	75500.03	2.90
				8970	X	55.	93094.31	2.20
				8970	Y	55.	109415.96	.40
133	39.074	90.389	59.	9960	M	55.	62868.34	1.90
				9960	W	78.	116868.37	1.60
				7980	X	58.	71646.50	2.20
				7980	Y	62.	84162.78	2.50
				8970	M	78.	58645.83	1.60
				8970	W	58.	75507.50	1.60
				8970	X	55.	92970.03	2.20
				8970	Y	55.	109231.11	1.30
134	39.365	90.461	57.	9960	M	55.	62760.93	2.20
				9960	W	79.	116773.52	1.60
				7980	X	57.	71667.53	1.60
				7980	Y	61.	84186.95	2.20
				8970	M	78.	58550.98	1.60
				8970	W	57.	75528.59	2.20
				8970	X	55.	92862.62	2.20
				8970	Y	55.	109038.53	.70
135	39.675	90.692	59.	9960	M	55.	62697.74	2.20
				9960	W	78.	116738.37	1.60
				7980	X	57.	71717.73	1.60
				7980	Y	60.	84218.11	1.60
				8970	M	78.	58515.83	1.90
				8970	W	57.	75578.76	2.20
				8970	X	55.	92799.53	1.90
				8970	Y	56.	108828.89	1.00
136	39.936	91.032	57.	9960	M	54.	62671.65	1.90
				9960	W	77.	116747.78	1.60
				7980	X	55.	71769.19	1.90
				7980	Y	59.	84235.16	1.00
				8970	M	76.	58525.25	1.60
				8970	W	55.	75630.25	1.60
				8970	X	54.	92773.10	1.60
				8970	Y	58.	108624.44	.70
137	39.977	91.527	56.	9960	M	54.	62717.15	1.90
				9960	W	76.	116806.06	1.60
				7980	X	55.	71771.17	1.90
				7980	Y	60.	84172.51	1.60
				8970	M	75.	58583.50	1.60
				8970	W	55.	75632.11	1.60
				8970	X	54.	92818.97	1.30
				8970	Y	58.	108491.57	.70

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
138	40.022	92.014	57.	5960	M	54.	62761.06	1.30
				9960	N	74.	116862.58	1.60
				7980	M	55.	71777.90	1.60
				7980	W	61.	84118.61	1.90
				8970	M	74.	58639.98	1.60
				8970	X	55.	75638.91	1.90
				8970	Y	54.	92862.84	1.00
				8970		58.	108364.55	.70
139	40.113	92.517	56.	9960	M	52.	62800.72	1.60
				9960	N	73.	116920.15	1.30
				7980	M	54.	71800.50	2.20
				7980	W	60.	84084.62	1.60
				8970	M	73.	58698.37	1.60
				8970	X	54.	75661.95	1.90
				8970	Y	52.	92902.93	1.00
				8970		59.	108219.11	1.00
140	40.228	92.991	56.	9960	M	51.	62835.64	1.60
				9960	N	72.	116975.61	1.60
				7980	M	53.	71832.06	2.20
				7980	W	59.	84066.33	1.60
				8970	M	71.	58753.03	1.90
				8970	X	54.	75693.16	1.90
				8970	Y	51.	92937.45	1.30
				8970		59.	108076.31	.40
141	40.377	93.453	54.	9960	M	51.	62862.71	1.30
				9960	N	71.	117026.75	1.60
				7980	M	53.	71872.20	1.90
				7980	W	59.	84064.58	1.60
				8970	M	70.	58804.18	1.60
				8970	X	53.	75733.17	2.20
				8970	Y	51.	92964.45	1.30
				8970		60.	107926.64	1.00
142	40.563	93.892	55.	9960	M	51.	62881.60	1.30
				9960	N	70.	117074.69	1.60
				7980	M	52.	71921.28	2.20
				7980	W	58.	84079.30	1.90
				8970	M	69.	58852.11	1.60
				8970	X	52.	75782.35	2.20
				8970	Y	51.	92983.36	1.60
				8970		61.	107766.42	.40
143	40.722	94.343	54.	9960	M	50.	62906.68	1.00
				9960	N	69.	117125.46	1.60
				7980	M	52.	71966.43	1.90
				7980	W	58.	84089.66	1.90
				8970	M	68.	58903.50	1.60
				8970	X	52.	75827.88	2.20
				8970	Y	50.	93008.41	1.60
				8970		61.	107618.65	1.00

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uv/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uv/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
144	40.856	94.804	54.	9960	M	50.	62939.14	1.30
				9960	N	68.	117179.03	1.30
				7980	W	51.	72007.08	2.20
				7980	X	57.	84095.06	1.60
				8970	W	67.	58957.07	1.60
				8970	X	51.	75868.60	2.50
				8970	X	50.	93040.93	1.30
				8970	Y	61.	107484.80	1.00
145	40.997	95.273	52.	9960	M	49.	62972.11	1.60
				9960	N	66.	117234.53	1.30
				7980	W	50.	72051.98	2.20
				7980	X	57.	84106.74	1.60
				8970	W	66.	59011.98	1.60
				8970	X	50.	75912.93	2.20
				8970	X	49.	93074.00	1.30
				8970	Y	62.	107356.16	1.00
146	41.175	95.788	53.	9960	M	48.	63004.69	1.30
				9960	N	65.	117294.33	1.30
				7980	W	49.	72106.11	1.90
				7980	X	56.	84128.76	1.60
				8970	W	65.	59071.60	1.60
				8970	X	49.	75967.13	1.90
				8970	X	48.	93106.56	1.30
				8970	Y	62.	107208.56	1.00

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
147	37.494	97.391	56.	9960	M	59.	113645.63	2.20
				7980	W	54.	6867.70	2.90
				7980	X	62.	18437.03	2.50
				7980	Y	54.	33912.21	1.60
				8970	W	59.	65248.16	2.50
				8970	X	54.	81059.67	2.90
				8970	Y	52.	114191.03	.40
148	37.205	97.170	57.	9960	M	59.	113701.39	2.90
				7980	W	54.	6637.51	3.20
				7980	X	63.	18192.20	3.20
				7980	Y	55.	33687.00	1.90
				8970	W	59.	65105.20	2.90
				8970	X	54.	80831.75	3.20
				8970	Y	51.	114163.73	1.00
149	36.899	97.131	57.	9960	M	59.	113615.67	2.90
				7980	W	55.	6454.06	3.50
				7980	X	64.	17979.13	3.20
				7980	Y	56.	33454.26	1.60
				8970	W	59.	65019.40	2.50
				8970	X	55.	80648.25	3.50
				8970	Y	50.	114155.18	1.30
150	36.842	96.733	58.	9960	M	60.	113404.66	3.20
				7980	W	56.	6223.06	3.50
				7980	X	65.	17766.44	3.20
				7980	Y	56.	33318.83	1.90
				8970	W	60.	64808.41	2.90
				8970	X	56.	80417.25	3.50
				8970	Y	50.	114046.63	1.30
151	36.969	96.172	58.	9960	M	61.	113125.03	2.20
				7980	W	57.	5990.66	2.90
				7980	X	65.	17589.25	1.90
				7980	Y	56.	33276.06	1.00
				8970	W	61.	64528.66	1.90
				8970	X	57.	80184.87	2.90
				8970	Y	51.	113872.66	1.30
152	37.107	95.586	58.	9960	M	63.	112831.93	2.20
				7980	W	56.	5753.98	2.50
				7980	X	64.	17417.44	2.20
				7980	Y	55.	33242.59	.70
				8970	W	63.	64235.64	2.20
				8970	X	56.	79948.06	2.20
				8970	Y	51.	113695.36	1.30

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
153	37.088	95.024	60.	9960	M	63.	112573.30	1.60
				7980	W	56.	5501.17	2.50
				7980	X	64.	17216.04	2.20
				7980	Y	55.	33164.35	.70
				8970	M	63.	63974.44	1.90
				8970	X	56.	79695.35	2.50
				8970	Y	51.	113581.00	1.00
154	36.890	94.518	59.	9960	M	63.	112366.82	2.50
				7980	W	57.	5225.00	2.20
				7980	X	64.	16968.89	2.20
				7980	Y	54.	33022.38	1.30
				8970	M	63.	63770.59	2.20
				8970	X	57.	79419.23	2.20
				8970	Y	51.	113542.94	1.00

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
155	38.727	90.431	57.	9960	M	55.	23076.01	2.90
				9960	W	78.	77074.31	2.90
				7980	X	60.	11042.73	2.90
				7980	Y	63.	23536.95	2.50
				8970	Z	78.	27359.83	2.90
				8970	W	60.	44059.15	2.90
				8970	X	55.	61685.79	2.90
				8970	Y	55.	78003.25	1.60
156	38.440	90.419	57.	9960	M	54.	23015.23	1.90
				9960	W	77.	77019.37	2.20
				7980	X	60.	10845.99	2.90
				7980	Y	63.	23325.18	2.50
				8970	Z	77.	27304.86	2.20
				8970	W	59.	43862.44	2.90
				8970	X	54.	61624.98	2.50
				8970	Y	54.	77996.98	1.30
157	38.094	90.330	58.	9960	M	54.	22946.55	2.50
				9960	W	77.	76968.33	1.90
				7980	X	60.	10619.13	1.90
				7980	Y	64.	23093.85	2.20
				8970	Z	77.	27253.83	1.90
				8970	W	60.	43635.57	2.20
				8970	X	54.	61556.34	1.90
				8970	Y	53.	78022.43	1.90
158	37.692	90.250	57.	9960	M	54.	22896.38	2.50
				9960	W	76.	76948.71	1.90
				7980	X	62.	10380.06	2.50
				7980	Y	65.	22845.55	2.50
				8970	Z	76.	27234.20	1.90
				8970	W	62.	43396.48	2.20
				8970	X	54.	61506.22	2.20
				8970	Y	51.	78069.81	1.30
159	37.419	89.939	58.	9960	M	54.	22747.37	2.50
				9960	W	75.	76848.86	1.60
				7980	X	63.	10129.34	2.20
				7980	Y	67.	22654.55	2.50
				8970	Z	75.	27134.36	2.20
				8970	W	63.	43145.69	2.20
				8970	X	54.	61357.23	2.50
				8970	Y	51.	78098.33	1.30
160	37.187	89.371	59.	9960	M	54.	22577.28	2.20
				9960	W	75.	76749.03	1.60
				7980	X	64.	9881.60	2.50
				7980	Y	68.	22488.65	3.20
				8970	Z	75.	27032.63	1.60
				8970	W	64.	42895.08	2.50
				8970	X	54.	61187.13	1.90
				8970	Y	49.	78121.38	.70

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DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
161	44.868	81.326	55.	9960	M	74.	10230.06	2.90
				9960	X	47.	39113.95	1.00
				9960	Y	45.	55128.66	1.90
				9960	Z	64.	68461.86	1.90
				8970	M	63.	66360.06	2.20
				8970	X	74.	96452.63	3.20
				8970	Y	46.	115247.25	-3.10
162	45.091	81.735	53.	9960	M	73.	10268.91	2.90
				9960	X	45.	39147.10	1.30
				9960	Y	46.	55140.88	2.20
				9960	Z	64.	68352.39	1.60
				8970	M	63.	66250.59	1.90
				8970	X	73.	96491.48	2.90
				8970	Y	48.	115017.23	-2.10
163	45.315	82.156	55.	9960	M	72.	10309.56	3.20
				9960	X	44.	39182.66	1.60
				9960	Y	46.	55155.14	1.90
				9960	Z	64.	68249.85	1.60
				8970	M	63.	66148.07	1.90
				8970	X	72.	96532.15	3.20
				8970	Y	49.	114786.00	-.90
164	45.534	82.535	52.	9960	M	71.	10352.35	2.90
				9960	X	43.	39219.81	1.90
				9960	Y	46.	55171.58	2.20
				9960	Z	64.	68154.15	1.90
				8970	M	63.	66052.35	1.90
				8970	X	71.	96574.44	2.90
				8970	Y	50.	114553.06	.70
165	45.765	83.024	53.	9960	M	69.	10398.10	2.50
				9960	X	42.	39260.86	1.90
				9960	Y	45.	55194.85	1.90
				9960	Z	63.	68070.12	2.20
				8970	M	63.	65968.31	2.50
				8970	X	69.	66620.69	2.50
				8970	Y	51.	114318.95	1.90
166	45.991	83.462	53.	9960	M	67.	10443.71	2.50
				9960	X	39.	39302.27	1.90
				9960	Y	44.	55218.39	1.90
				9960	Z	63.	67993.23	2.20
				8970	M	62.	65891.43	1.90
				8970	X	67.	96666.26	2.50
				8970	Y	52.	114085.56	1.60

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uv/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uv/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
167	46.213	83.903	52.	9960	M	66.	10489.02	2.50
				9960	X	38.	39343.01	1.90
				9960	Y	43.	55242.65	1.90
				9960	N	62.	67923.76	1.90
				8970	M	61.	65821.92	2.50
				8970	X	66.	96711.63	2.90
				8970	Y	53.	113852.73	1.30
168	46.427	84.403	53.	9960	M	65.	10535.03	2.50
				9960	X	36.	39386.06	1.60
				9960	Y	42.	55261.20	1.90
				9960	N	62.	67842.26	1.90
				8970	M	61.	65740.47	1.60
				8970	X	65.	96757.59	2.50
				8970	Y	54.	113595.76	1.30
169	46.454	84.682	52.	9960	M	63.	10551.50	1.90
				9960	X	35.	39410.06	1.60
				9960	Y	42.	55229.03	1.90
				9960	N	61.	67719.63	1.00
				8970	M	60.	65617.80	1.60
				8970	X	63.	96774.08	2.20
				8970	Y	54.	113384.48	.40
170	46.479	85.332	52.	9960	M	63.	10562.89	2.20
				9960	X	34.	39428.41	1.60
				9960	Y	41.	55195.38	1.90
				9960	N	63.	67603.13	1.30
				8970	M	62.	65501.34	2.20
				8970	X	63.	96785.46	2.50
				8970	Y	55.	113178.06	-.30
171	46.497	85.778	53.	9960	M	62.	10572.90	2.50
				9960	X	34.	39443.90	1.60
				9960	Y	41.	55159.32	1.90
				9960	N	62.	67489.18	1.30
				8970	M	61.	65388.43	1.60
				8970	X	62.	96795.47	2.20
				8970	Y	55.	112976.12	-.30
172	46.518	86.235	51.	9960	M	61.	10587.85	2.20
				9960	X	33.	39464.22	1.60
				9960	Y	40.	55130.28	1.90
				9960	N	62.	67383.71	1.30
				8970	M	62.	65281.91	1.60
				8970	X	61.	96810.44	2.20
				8970	Y	59.	112771.86	0.00

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uv/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uv/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
173	46.540	86.703	51.	9960	M	60.	10605.94	1.90
				9960	W	33.	39488.34	1.60
				9960	X	40.	55104.97	1.90
				9960	Y	62.	67285.21	1.90
				8970	M	61.	65183.38	1.90
				8970	X	60.	96828.50	2.50
				8970	Y	58.	112566.16	0.00
174	46.549	87.169	51.	9960	M	59.	10623.19	2.20
				9960	W	32.	39509.88	1.60
				9960	X	40.	55077.98	1.90
				9960	Y	62.	67187.91	1.60
				8970	M	61.	65086.10	1.90
				8970	X	59.	96845.81	2.20
				8970	Y	59.	112364.06	.40
175	46.556	87.630	50.	9960	M	58.	10640.34	2.50
				9960	Y	39.	55052.09	1.90
				9960	W	61.	67096.50	1.30
				8970	M	60.	64994.75	1.60
				8970	X	58.	96862.91	2.50
				8970	Y	58.	112163.61	-.30
176	46.568	88.085	51.	9960	M	56.	10657.18	2.50
				9960	W	59.	67012.61	1.00
				8970	M	58.	64910.82	1.60
				8970	X	56.	96879.85	2.90
				8970	Y	60.	111963.37	-.30
177	46.571	88.524	50.	9960	M	54.	10670.16	2.20
				9960	W	60.	66933.21	1.30
				8970	M	59.	64831.41	2.20
				8970	X	54.	96892.64	2.50
				8970	Y	64.	111774.48	1.00
178	46.568	88.956	51.	9960	M	54.	10681.63	1.90
				9960	W	59.	66855.34	1.30
				8970	M	58.	64753.56	1.60
				8970	X	54.	96904.15	2.50
				8970	Y	66.	111584.67	1.00

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uv/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uv/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
179	46.566	89.386	51.	9960	M	55.	10693.83	2.90
				9960	W	60.	66784.09	1.60
				7980	X	39.	41091.60	2.90
				8970	M	59.	64682.25	2.50
				8970	X	54.	96916.38	2.50
				8970	Y	67.	111398.80	1.00
180	46.530	89.818	51.	9960	M	53.	10701.92	2.90
				9960	W	59.	66705.51	1.60
				7980	X	39.	40978.50	2.90
				8970	M	59.	64603.73	1.90
				8970	X	53.	96924.62	2.50
				8970	Y	69.	111224.55	1.00
181	46.560	90.307	51.	9960	W	59.	66703.32	1.90
				7980	X	39.	40976.26	2.90
				8970	M	59.	64601.55	1.60
				8970	X	53.	96925.00	2.20
				8970	Y	69.	111217.69	1.00
182	46.617	90.743	50.	9960	M	51.	10745.26	2.50
				9960	W	59.	66614.50	1.60
				7980	X	39.	40810.26	2.90
				8970	M	58.	64512.70	1.60
				8970	X	51.	96967.78	2.50
				8970	Y	71.	110819.64	1.00
183	46.678	91.184	50.	9960	M	51.	10769.13	2.50
				9960	W	59.	66585.83	1.00
				7980	X	39.	40741.56	2.50
				8970	M	58.	64484.03	1.60
				8970	X	50.	96991.77	2.50
				8970	Y	73.	110626.68	1.00
184	46.756	91.635	49.	9960	M	49.	10798.05	2.50
				9960	W	59.	66569.06	1.30
				7980	X	39.	40683.95	2.50
				8970	M	58.	64467.28	1.60
				8970	X	49.	97020.66	2.20
				8970	Y	75.	110433.30	1.30

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
185	43.655	95.050	51.	9960	M	47.	67510.56	1.60
				9960	M	63.	122251.25	1.30
				8970	X	62.	84544.56	1.90
				8970	X	47.	118130.07	1.60
				8970	Y	68.	131614.09	1.00
186	43.639	94.358	52.	9960	M	48.	67228.95	1.60
				9960	M	64.	121993.37	1.30
				7980	W	43.	3559.27	0.00
				7980	W	49.	15853.73	1.60
				8970	X	63.	84288.57	1.60
				8970	X	43.	101687.80	-1.90
				8970	X	48.	117848.36	1.90
				8970	Y	68.	131516.80	1.00
187	43.685	93.737	53.	9960	M	49.	66970.16	1.60
				9960	M	65.	121778.97	1.60
				7980	W	44.	3395.05	1.00
				7980	W	49.	15745.45	1.60
				8970	X	54.	84071.69	1.90
				8970	X	44.	101523.36	.40
				8970	X	49.	117589.56	2.20
				8970	Y	68.	131422.48	1.30
188	43.753	93.113	52.	9960	M	50.	66718.70	1.90
				9960	M	65.	121577.19	1.60
				7980	W	43.	3247.03	1.30
				7980	W	49.	15654.58	1.60
				8970	X	65.	83872.40	1.60
				8970	X	43.	101375.48	.70
				8970	X	50.	117338.13	1.90
				8970	Y	68.	131337.66	1.30
189	43.769	92.490	53.	9960	M	51.	66460.06	1.90
				9960	M	66.	121369.34	1.30
				7980	W	43.	3086.37	1.60
				7980	W	51.	15552.19	1.60
				8970	X	65.	83664.44	1.60
				8970	X	43.	101214.68	1.00
				8970	X	51.	117079.43	1.90
				8970	Y	67.	131281.35	1.30
190	43.679	91.885	53.	9960	M	52.	66211.94	1.90
				9960	M	67.	121147.13	1.60
				7980	W	44.	2899.20	1.60
				7980	W	50.	15418.34	1.90
				8970	X	66.	83442.31	1.60
				8970	X	44.	101027.72	1.00
				8970	X	52.	116831.43	1.90
				8970	Y	66.	131275.51	1.00

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
191	43.570	91.289	54.	9960	M	53.	65965.40	1.90
				9960	W	67.	120926.20	1.60
				7980	M	44.	2710.96	1.60
				7980	X	48.	15283.71	1.30
				8970	W	67.	83221.37	1.90
				8970	X	44.	100839.51	1.00
				8970	Y	53.	116584.78	1.90
				8970	Z	65.	131284.75	1.30
192	43.439	90.699	57.	9960	M	54.	65718.73	1.30
				9960	W	68.	120703.58	1.30
				7980	M	44.	2517.50	1.60
				7980	X	48.	15145.30	1.60
				8970	W	68.	82998.80	1.60
				8970	X	44.	100645.84	1.00
				8970	Y	54.	116338.26	1.60
				8970	Z	64.	131309.19	1.60
193	43.195	86.326	54.	9960	M	64.	63896.03	1.60
				9960	W	74.	119740.93	1.60
				7980	X	49.	14603.03	1.30
				8970	W	73.	82036.06	1.90
				8970	Y	64.	114515.51	1.60
				8970	Z	57.	131436.84	1.30
194	43.249	85.692	56.	9960	M	65.	63640.11	1.60
				9960	Y	46.	107522.83	.70
				9960	W	73.	119729.10	1.60
				7980	X	48.	14591.71	1.30
				7980	M	48.	62528.76	1.30
				8970	W	72.	82024.21	1.90
				8970	Y	65.	114259.58	1.60
				8970	Z	55.	131459.84	1.00
195	43.365	85.067	56.	9960	M	67.	63388.05	1.60
				9960	W	71.	119754.73	1.60
				7980	M	48.	1400.15	1.90
				7980	X	48.	14606.90	1.60
				8970	W	71.	82049.86	2.20
				8970	X	47.	99528.70	1.60
				8970	Y	67.	114007.48	1.60
				8970	Z	54.	131469.40	1.00
196	43.520	84.460	54.	9960	M	68.	63139.98	1.30
				9960	W	71.	119801.70	1.60
				7980	X	47.	14638.35	1.60
				8970	W	70.	32096.81	1.90
				8970	Y	68.	113762.37	1.60
				8970	Z	53.	131472.19	1.00

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
197	43.502	84.001	55.	9960	M	70.	17800.46	2.50
				9960	X	40.	46731.86	2.90
				9960	Y	50.	61971.01	.40
				9960	Z	71.	74655.36	1.60
				8970	M	70.	36736.63	1.60
				8970	X	70.	68205.98	2.50
				8970	Y	53.	86142.08	1.90
198	43.225	83.884	55.	9960	M	70.	17667.90	3.20
				9960	X	39.	46596.02	3.20
				9960	Y	50.	61773.03	.70
				9960	Z	71.	74501.50	1.90
				8970	M	70.	36582.75	2.20
				8970	X	70.	68073.45	2.90
				8970	Y	52.	86138.48	1.00
199	42.936	83.697	54.	9960	M	71.	17522.19	2.90
				9960	X	39.	46443.18	3.20
				9960	Y	51.	61562.83	.70
				9960	Z	71.	74363.10	1.90
				8970	M	70.	36444.34	2.50
				8970	X	71.	67927.65	2.90
				8970	Y	51.	86153.56	1.00
200	42.612	83.365	57.	9960	M	72.	17343.42	3.20
				9960	X	39.	46253.32	3.50
				9960	Y	52.	61325.81	1.30
				9960	Z	71.	74257.28	1.60
				8970	M	70.	36337.33	1.90
				8970	X	72.	67751.20	3.20
				8970	Y	50.	86208.82	1.60

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
201	39.783	119.070	68.	9940.	M	93.	16853.55	2.20
				9940.	3	68.	33246.68	1.60
				9940.	X	75.	45897.13	1.60
				9940.	Y	66.	60789.61	1.30
				5990.	Y	67.	45445.59	2.50
202	39.708	119.227	69.	9940.	M	97.	16836.70	1.90
				9940.	3	68.	33239.27	1.60
				9940.	X	75.	45810.72	1.60
				9940.	Y	66.	60763.35	1.00
				5990.	Y	67.	45436.15	2.50
203	39.598	119.453	71.	9940.	M	95.	16839.25	1.90
				9940.	3	68.	33228.28	1.60
				9940.	X	76.	45688.58	1.60
				9940.	Y	67.	60727.77	1.60
				5990.	Y	68.	45425.15	2.90
204	39.517	119.696	62.	9940.	M	92.	2108.10	1.90
				9940.	3	67.	18460.09	1.00
				9940.	X	76.	30814.41	1.30
				9940.	Y	65.	45952.22	1.90
				5990.	Y	67.	44442.17	2.50
205	39.485	119.865	61.	9940.	M	90.	2124.94	1.60
				9940.	3	68.	18439.25	1.60
				9940.	X	77.	30731.75	1.60
				9940.	Y	63.	45945.78	.70
				5990.	Y	67.	44421.40	2.90
206	39.432	120.119	64.	9940.	M	87.	2151.05	1.60
				9940.	3	65.	18411.63	1.30
				9940.	X	78.	30606.85	1.60
				9940.	Y	63.	45936.91	1.00
				5990.	Y	65.	44393.75	1.90
207	39.400	120.283	64.	9940.	M	85.	2168.08	1.30
				9940.	3	65.	18393.78	.70
				9940.	X	79.	30524.82	1.60
				9940.	Y	63.	45931.75	1.00
				5990.	Y	65.	44375.93	1.60
208	39.350	120.533	66.	9940.	M	83.	2193.53	1.30
				9940.	3	66.	18368.08	1.90
				9940.	X	82.	30401.13	2.20
				9940.	Y	60.	45925.59	.70
				5990.	Y	65.	44350.25	3.20

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB uV/m	GRI IN TENS OF uSECS	CLUSTER SECONDARY IDENTIFIER	FIELD STRENGTH dB uV/m	TIME OF ARRIVAL IN uSECS	ECD IN uSECS
209	39.315	120.699	67.	9940	M	81.	2209.58	1.30
				9940	3	62.	18352.11	1.00
				9940	X	83.	30321.57	1.90
				9940	Y	57.	45922.55	-1.60
				5990	Y	62.	44334.23	1.60
210	39.265	120.848	65.	9940	M	79.	2234.87	.70
				9940	3	62.	18328.76	0.00
				9940	X	86.	30199.48	2.20
				9940	Y	53.	45918.90	-1.80
				5990	Y	61.	44310.88	1.30
211	39.221	121.114	63.	9940	M	77.	2252.15	.70
				9940	3	61.	18313.93	-.30
				9940	X	87.	30116.92	2.20
				9940	Y	51.	45917.81	-2.50
				5990	Y	61.	44296.05	1.00
212	39.181	121.366	63.	9940	M	76.	2278.15	.70
				9940	3	59.	18293.32	-1.60
				9940	X	89.	29995.56	-2.50
				9940	Y	51.	45918.06	-2.80
				5990	Y	58.	44275.45	0.00
213	39.144	121.529	63.	9940	M	74.	2295.19	.40
				9940	3	59.	18281.29	-1.60
				9940	X	90.	29913.19	-2.50
				9940	Y	50.	45917.34	-2.80
				5990	Y	59.	44263.43	.40
214	39.113	121.690	62.	9940	M	74.	2312.64	.40
				9940	3	61.	18268.68	-1.30
				9940	X	92.	29834.19	-2.50
				9940	Y	51.	45918.80	-2.50
				5990	Y	60.	44250.80	1.30
215	39.068	121.950	61.	9940	M	74.	2339.14	.40
				9940	3	61.	18248.99	.40
				9940	X	94.	29711.66	-2.90
				9940	Y	52.	45923.68	-2.10
				5990	Y	61.	44231.46	1.90
216	39.868	122.065	60.	9940	M	74.	2341.96	.70
				9940	3	62.	18276.47	.70
				9940	X	97.	29603.29	3.20
				9940	Y	52.	45870.05	-2.50
				5990	Y	61.	44258.60	1.60

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB uv/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH IN dB uv/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
217	36.708	122.101	64.	9940	M	74.	2337.54	.70
				9940	3	61.	18304.33	.70
				9940	X	98.	29557.17	3.20
				9940	Y	53.	45818.10	-2.50
				5990	Y	61.	44286.46	1.90
218	38.544	122.119	64.	9940	M	73.	2331.78	1.00
				9940	3	61.	18332.21	.70
				9940	X	98.	29545.75	3.20
				9940	Y	54.	45763.78	-2.10
				5990	Y	61.	44314.34	1.60
219	38.297	122.127	64.	9940	M	72.	2323.47	.70
				9940	3	61.	18374.11	1.00
				9940	X	94.	29564.56	2.50
				9940	Y	55.	45677.38	-2.10
				5990	Y	61.	44356.23	1.90
220	38.051	122.136	65.	9940	M	72.	2321.38	.70
				9940	3	60.	18415.80	.40
				9940	X	50.	29596.88	1.90
				9940	Y	57.	45594.35	-1.50
				5990	Y	60.	44397.97	1.60

FIELD POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER/SECONDARY IDENTIFIER	FIELD STRENGTH OF uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
221	41.539	109.042	51.	9940	M	59.	32648.84	1.60
				9940	3	51.	47076.08	1.30
				9940	X	50.	61837.23	2.90
				9940	Y	56.	74613.33	1.30
				8970	Z	40.	60509.64	3.20
				8970	Y	49.	106766.38	1.60
222	41.553	109.224	51.	9940	M	59.	32568.00	1.90
				9940	3	52.	47014.94	1.30
				9940	X	50.	61756.56	3.20
				9940	Y	59.	74543.75	1.60
				8970	Z	40.	60527.99	3.20
				8970	Y	48.	106781.02	1.60
				5990	Y	51.	31965.80	1.60
223	41.494	109.490	50.	9940	M	60.	32445.86	1.60
				9940	3	52.	46525.31	.70
				9940	X	50.	61634.48	2.90
				9940	Y	59.	74438.30	1.60
				8970	Z	39.	60556.98	3.20
				8970	Y	48.	106805.20	1.90
				5990	Y	52.	31876.10	1.60
224	41.443	109.564	51.	9940	M	60.	72319.19	1.60
				9940	3	52.	46632.52	1.00
				9940	X	51.	61507.87	2.50
				9940	Y	58.	74330.70	1.30
				8970	Z	39.	60588.16	2.90
				8970	Y	47.	106831.21	1.90
				5990	Y	52.	31783.30	1.60
225	41.427	109.870	51.	9940	M	60.	32269.53	1.60
				9940	3	52.	46796.92	.70
				9940	X	52.	61460.81	2.50
				9940	Y	57.	74291.95	.70
				8970	Z	39.	60600.73	3.20
				8970	Y	47.	106939.76	1.90
				5990	Y	52.	31747.28	.70
226	41.294	111.091	52.	9940	M	63.	31725.24	.70
				9940	3	54.	46382.77	.40
				9940	X	54.	60913.31	1.00
				9940	Y	64.	73870.63	1.60
				8970	Z	37.	60542.22	2.90
				8970	Y	46.	106939.10	1.30
				5990	Y	54.	31533.75	.40
227	41.270	111.266	51.	9940	M	53.	31649.29	1.00
				9940	3	55.	46328.71	.40
				9940	X	54.	60857.30	0.00
				9940	Y	61.	73813.89	0.00
				5990	Y	55.	31279.60	1.00

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN db/uv/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH db/uv/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
228	41.244	111.456	52.	9940	M	64.	31563.53	.70
				9940	3	54.	46267.78	0.00
				9940	X	55.	60751.37	0.00
				9940	Y	63.	73750.25	.40
				5990	Y	54.	31218.80	1.00
229	41.229	111.733	52.	9940	M	65.	31442.30	1.00
				9940	3	55.	46174.13	-.30
				9940	X	56.	60629.81	.70
				9940	Y	65.	73668.01	1.00
				5990	Y	55.	31125.11	.40
230	41.218	111.942	52.	9940	M	66.	31323.83	1.00
				9940	3	59.	46082.30	.40
				9940	X	57.	60510.82	.70
				9940	Y	64.	73589.69	-.30
				5990	Y	59.	31033.25	1.00
231	41.210	112.143	55.	9940	M	67.	31252.11	1.30
				9940	3	60.	46006.96	.40
				9940	X	57.	60436.83	1.00
				9940	Y	66.	73541.24	.40
				5990	Y	60.	30977.94	1.30
232	41.033	112.111	55.	9940	M	66.	31195.42	1.00
				9940	3	59.	46032.65	.40
				9940	X	57.	60384.13	.70
				9940	Y	65.	73438.92	0.00
				5990	Y	59.	30983.60	1.00
233	40.890	112.067	54.	9940	M	66.	31165.20	.70
				9940	3	59.	46050.70	.40
				9940	X	57.	60355.18	1.00
				9940	Y	65.	73364.50	-.60
				5990	Y	59.	31001.59	.70

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF uSECS	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN uSECS	ECD IN uSECS
234	40.609	111.936	55.	9940	M	67.	20130.50	1.30
				9940	3	60.	35440.53	1.30
				9940	X	57.	49320.84	1.30
				9940	Y	69.	62285.79	2.90
				5990	M	30.	20013.58	1.90
				5990	Y	60.	47237.30	1.00
235	40.865	112.442	56.	9940	M	67.	19874.45	1.30
				9940	3	62.	34808.23	1.30
				9940	X	57.	49064.31	1.30
				9940	Y	67.	62129.12	1.30
				5990	Y	62.	47005.14	1.90
236	40.830	112.599	55.	9940	M	68.	19796.45	1.30
				9940	3	62.	34758.11	.70
				9940	X	58.	49086.31	1.60
				9940	Y	66.	62069.81	1.00
				5990	M	53.	19887.11	1.00
				5990	Y	62.	46955.03	1.90
237	40.756	113.051	56.	9940	M	69.	19578.24	1.30
				9940	3	66.	34617.50	1.60
				9940	X	59.	48768.06	1.00
				9940	Y	68.	61918.60	1.00
				5990	M	53.	19766.38	1.00
				5990	Y	66.	46814.37	2.90
238	40.744	113.239	59.	9940	M	70.	19490.98	1.60
				9940	3	67.	34555.81	1.60
				9940	X	60.	48680.68	1.60
				9940	Y	70.	61866.98	1.90
				5990	Y	66.	46752.69	2.90
239	40.729	113.524	58.	9940	M	70.	19361.86	1.30
				9940	3	67.	34465.59	1.90
				9940	X	60.	48551.28	1.60
				9940	Y	69.	61793.01	2.20
				5990	Y	67.	46662.45	2.90
240	40.727	113.515	59.	9940	M	70.	19275.13	1.30
				9940	3	67.	34402.67	1.60
				9940	X	60.	48464.18	1.30
				9940	Y	68.	61748.80	1.90
				5990	Y	66.	46599.52	2.90

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN db/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH db/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
241	40.736	113.996	53.	9940	M	70.	19147.71	1.30
				9940	W	68.	34305.98	1.60
				9940	X	61.	48335.92	1.60
				9940	Y	68.	61689.63	1.60
				5990	Y	67.	46502.94	3.20
242	40.741	114.060	57.	9940	M	70.	19121.66	1.00
				9940	W	68.	34285.40	1.90
				9940	X	61.	48309.61	1.60
				9940	Y	67.	61678.52	1.90
				5990	Y	68.	46482.31	3.20
243	40.745	114.918	58.	9940	M	72.	18734.45	1.00
				9940	W	68.	34008.36	1.30
				9940	X	62.	47918.11	1.00
				9940	Y	66.	61513.11	.40
				5990	Y	67.	46205.25	2.50
244	40.744	114.981	58.	9940	M	72.	18707.40	.70
				9940	W	67.	33990.99	1.60
				9940	X	62.	47890.75	1.60
				9940	Y	66.	61501.58	.70
				5990	Y	67.	46187.85	2.50
245	40.520	117.077	61.	9940	M	82.	17754.58	1.60
				9940	W	70.	33465.01	2.20
				9940	X	70.	46916.06	2.20
				9940	Y	66.	61143.12	.70
				5950	M	38.	18664.46	-4.00
				5990	Y	70.	45661.86	3.20
246	40.467	117.252	60.	9940	M	83.	17668.51	1.60
				9940	W	68.	33437.30	1.60
				9940	X	70.	46828.24	2.20
				9940	Y	67.	61109.08	1.60
				5950	M	36.	18636.39	-4.30
				5990	Y	68.	45634.19	2.50
247	40.387	117.512	59.	9940	M	85.	17543.64	1.60
				9940	W	69.	33400.35	1.60
				9940	X	70.	46700.53	2.20
				9940	Y	66.	61061.13	1.30
				5990	M	35.	18597.01	-4.60
				5950	Y	68.	45597.27	2.50

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN db/uv/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH db/uv/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
248	40.290	117.760	61.	9940	M	87.	17419.31	1.90
				9940	3	70.	33371.56	1.90
				9940	X	72.	46574.46	2.20
				9940	Y	65.	61010.38	.70
				5990	Y	69.	45568.40	2.90
249	40.238	117.930	61.	9940	M	88.	17335.92	1.60
				9940	3	69.	33348.33	1.60
				9940	X	72.	46487.55	1.90
				9940	Y	67.	60981.47	1.60
				5990	Y	69.	45545.23	2.90
250	40.115	118.360	64.	9940	M	91.	17141.71	1.60
				9940	3	70.	33292.50	1.90
				9940	X	74.	46276.36	2.50
				9940	Y	65.	60921.32	1.00
				5990	Y	69.	45489.38	3.20
251	40.059	118.527	66.	9940	M	93.	17068.90	1.60
				9940	3	69.	33274.12	1.90
				9940	X	74.	46193.13	2.20
				9940	Y	65.	60896.71	1.30
				5990	Y	69.	45471.01	3.20
252	39.935	118.756	66.	9940	M	96.	16953.40	1.90
				9940	3	69.	33262.90	1.90
				9940	X	74.	46063.05	1.90
				9940	Y	66.	60846.33	1.00
				5990	Y	69.	45459.95	3.20
253	39.820	118.932	68.	9940	M	99.	16869.30	2.20
				9940	3	68.	33250.98	1.60
				9940	X	74.	45936.42	1.60
				9940	Y	66.	60801.95	1.30
				5550	Y	68.	45447.85	2.90

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
254	36.033	116.875	61.	9940	M	80.	1223.49	1.60
				9940	3	61.	17667.93	.70
				9940	X	67.	30176.87	.70
				9940	Y	74.	43583.91	1.60
				5990	Y	61.	43649.92	1.60
255	38.216	115.127	57.	9940	M	72.	1374.63	.70
				9940	3	60.	17507.85	1.30
				9940	X	62.	30443.42	1.30
				9940	Y	75.	43238.26	1.30
				5990	Y	60.	43490.12	1.90
256	38.251	114.473	55.	9940	M	71.	1456.03	1.00
				9940	3	60.	17475.18	.70
				9940	X	62.	30543.62	1.60
				9940	Y	77.	43165.63	1.60
				5990	Y	59.	43457.73	1.60
257	38.319	113.765	57.	9940	M	69.	1548.00	1.00
				9940	3	58.	17441.03	.70
				9940	X	59.	30653.00	1.00
				9940	Y	78.	43131.81	2.50
				5990	Y	58.	43423.15	1.90
258	38.392	113.172	54.	9940	M	67.	1625.36	1.00
				9940	3	58.	17413.75	.70
				9940	X	56.	30742.78	1.00
				9940	Y	76.	43136.86	1.60
				5990	Y	57.	43395.87	2.20
259	38.420	112.574	55.	9940	M	66.	1711.58	1.30
				9940	3	61.	17405.71	2.20
				9940	X	55.	30836.56	.70
				9940	Y	74.	43149.06	1.30
				5990	Y	60.	43387.91	2.90
260	38.441	111.985	55.	9940	M	63.	1798.44	.40
				9940	3	60.	17407.11	1.60
				9940	X	53.	30929.25	.70
				9940	Y	72.	43172.15	1.60
				5990	Y	60.	43389.30	2.20

O-TH BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREE	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
261	37.9?8	122.140	64.	9940	M	72.	2722.25	.70
				9940	3	60.	18429.91	1.30
				9940	X	89.	29608.93	1.90
				9940	Y	57.	45567.86	-1.50
				5990	Y	60.	44412.02	1.60
262	37.804	122.160	64	9940	M	72.	2328.52	1.00
				9940	3	60.	18459.16	1.00
				9940	X	88.	29633.57	1.90
				9940	Y	58.	45517.97	1.90
				5990	Y	59.	44441.30	1.90
263	37.712	121.958	63	9940	M	72.	2258.00	.40
				9940	3	59.	18438.78	0.00
				9940	X	87.	29638.78	1.60
				9940	Y	59.	45404.32	1.60
				5990	Y	59.	44420.90	1.60
264	37.902	121.625	62	9940	M	73.	2112.36	1.00
				9940	3	58.	18341.59	.40
				9940	X	87.	29604.66	2.50
				9940	Y	58.	45278.59	-1.30
				5990	Y	58.	44323.81	1.60
265	37.816	121.389	63	9940	M	73.	2023.70	1.00
				9940	3	60.	18295.80	1.00
				9940	X	87.	29611.91	2.90
				9940	Y	58.	45182.98	2.90
				5990	Y	59.	44277.97	2.20
266	37.937	121.037	62	9940	M	72.	1896.43	.40
				9940	3	59.	18229.25	.70
				9940	X	86.	29631.81	3.20
				9940	Y	57.	45045.88	-1.90
				5990	Y	59.	44211.44	2.50
267	37.847	120.795	62	9940	M	73.	1812.20	.40
				9940	3	56.	18186.95	-.30
				9940	X	85.	29653.39	2.90
				9940	Y	56.	44949.86	-1.20
				5990	Y	55.	44169.06	-1.00

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
268	37.857	120.558	61.	9940	M	74.	1731.44	.40
				9940	3	56.	18145.48	.40
				9940	X	84.	29676.97	2.50
				9940	Y	55.	44856.55	-1.50
				5990	Y	56.	44127.59	.70
269	37.874	120.202	62.	9940	M	75.	1617.85	.40
				9940	3	54.	18086.36	-.60
				9940	X	82.	29717.00	2.50
				9940	Y	54.	44717.58	-2.10
				5990	Y	53.	44068.44	.90
270	37.890	119.846	60.	9940	M	76.	1513.34	.40
				9940	3	56.	18029.75	-.60
				9940	X	79.	29763.74	-1.60
				9940	Y	55.	44580.75	-1.80
				5990	Y	56.	44012.88	-1.00
271	37.902	119.610	59.	9940	M	77.	1451.51	.70
				9940	3	57.	17994.06	-.30
				9940	X	76.	29789.91	-1.60
				9940	Y	55.	44494.09	-2.10
				5990	Y	57.	43576.23	1.30
272	37.914	119.373	59.	9940	M	78.	1393.80	1.00
				9940	3	58.	17959.01	.40
				9940	X	73.	29821.63	1.90
				9940	Y	61.	44405.18	-1.80
				5990	Y	58.	43941.14	1.30
273	37.925	119.021	61.	9940	M	82.	1322.95	1.60
				9940	3	63.	17910.28	1.30
				9940	X	67.	29869.52	.40
				9940	Y	64.	44276.23	-.60
				5990	Y	63.	43892.38	2.50
274	37.941	118.667	59.	9940	M	81.	1268.78	1.60
				9940	3	63.	17864.21	1.00
				9940	X	70.	29919.50	0.00
				9940	Y	66.	44150.18	-1.30
				5990	Y	62.	43846.33	2.50

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
275	37.952	118.436	61.	9940	M	83.	1241.63	1.90
				9940	3	64.	17834.48	1.30
				9940	X	70.	29454.38	.40
				9940	Y	69.	44063.75	.30
				5990	Y	63.	43816.55	2.50
276	37.987	118.089	61.	9940	M	81.	1208.38	1.60
				9940	3	63.	17785.39	1.30
				9940	X	70.	30000.81	1.30
				9940	Y	71.	43951.15	1.30
				5990	Y	63.	43767.55	2.90
277	38.010	117.856	62.	9940	M	81.	1194.64	1.60
				9940	3	63.	17754.95	1.60
				9940	X	69.	30032.34	1.30
				9940	Y	72.	43879.66	1.30
				5990	Y	62.	43737.08	2.20
278	38.035	117.377	62.	9940	M	82.	1195.13	1.60
				9940	3	63.	17703.39	1.30
				9940	X	68.	30104.28	1.00
				9940	Y	74.	43730.20	1.30
				5990	Y	63.	43685.44	2.20
279	38.033	117.139	61.	9940	M	81.	1207.03	1.60
				9940	3	63.	17684.19	1.90
				9940	X	67.	30141.81	.70
				9940	Y	73.	43655.58	1.30
				5990	Y	62.	43666.30	2.90
280	38.032	117.100	62.	9940	3	62.	17681.52	1.90
				9940	X	67.	30147.60	.70
				9940	Y	73.	43643.86	1.30
				5990	Y	62.	43663.66	2.90

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uv/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uv/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
281	34.760	115.587	51.	9940	M	66.	28979.56	1.30
				9940	3	49.	45465.93	-1.50
				9940	X	56.	57597.63	1.00
				9940	Y	92.	69237.87	1.90
				5990	Y	49.	37734.93	1.00
282	34.753	115.831	53.	9940	M	66.	28904.74	1.30
				9940	3	51.	45407.87	1.30
				9940	X	58.	57496.28	.40
				9940	Y	88.	69253.64	1.60
				5990	Y	51.	37676.80	2.50
283	34.764	116.012	54.	9940	M	65.	28842.84	1.30
				9940	3	52.	45357.49	1.60
				9940	X	58.	57415.66	.70
				9940	Y	88.	69265.44	1.60
				5990	Y	51.	37626.35	2.50
284	34.791	116.285	51.	9940	M	64.	28750.30	.70
				9940	3	52.	45281.60	1.90
				9940	X	59.	57295.05	.70
				9940	Y	86.	69284.40	1.60
				5990	Y	51.	37550.54	3.20
285	34.802	116.469	54.	9940	M	64.	28693.31	.70
				9940	3	53.	45233.67	1.90
				9940	X	60.	57216.93	.70
				9940	Y	87.	69301.18	2.20
				5990	Y	53.	37502.56	3.20
286	34.776	116.648	53.	9940	M	64.	28647.80	.70
				9940	3	52.	45198.85	1.90
				9940	X	62.	57147.06	1.30
				9940	Y	86.	69323.04	2.20
				5990	Y	52.	37467.73	2.90
287	34.728	116.919	56.	9940	M	66.	28588.43	.70
				9940	3	51.	45152.86	1.60
				9940	X	64.	57048.63	1.00
				9940	Y	85.	69356.25	1.90
				5990	Y	50.	37421.81	2.50

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uv/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uv/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
288	34.699	117.059	57.	9940	M	63.	28551.18	.40
				9940	3	49.	45122.98	1.60
				9940	X	64.	56984.33	1.60
				9940	Y	82.	69378.90	1.60
				5990	Y	49.	37391.87	2.50
289	34.658	117.373	53.	9940	M	65.	28434.67	1.30
				9940	3	51.	45075.33	2.20
				9940	X	66.	56885.81	1.90
				9940	Y	81.	69413.00	1.30
				5990	Y	51.	37344.24	3.50
290	34.640	117.649	53.	9940	M	62.	28433.23	.70
				9940	3	49.	45021.45	1.60
				9940	X	66.	56782.51	1.60
				9940	Y	79.	69446.07	.70
				5990	Y	49.	37290.30	3.20
291	34.628	117.832	51.	9940	M	59.	28395.18	0.00
				9940	3	49.	44986.63	1.90
				9940	X	68.	56715.62	1.90
				9940	Y	78.	69467.55	.40
				5990	Y	48.	37255.58	3.20
292	34.589	118.092	48.	9940	M	56.	28346.41	-.60
				9940	3	43.	44940.70	1.90
				9940	X	67.	56623.29	1.90
				9940	Y	77.	69499.58	0.00
				5990	Y	42.	37209.78	2.90
293	34.508	117.948	48.	9940	M	57.	28349.73	-.30
				9940	3	43.	44943.92	1.90
				9940	X	68.	56639.53	1.90
				9940	Y	78.	69438.25	0.00
				5990	Y	43.	37212.62	2.90
294	34.466	117.764	50.	9940	M	58.	28340.25	-.90
				9940	3	48.	44931.25	2.20
				9940	X	67.	56654.33	1.90
				9940	Y	78.	69357.25	1.30
				5990	Y	47.	37200.20	3.20

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DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
295	34.329	117.518	53.	9940	M	61.	28352.65	0.00
				9940	3	49.	44939.61	2.20
				9940	X	66.	56692.08	1.60
				9940	Y	79.	69255.93	1.30
				5990	Y	49.	37208.48	2.90
296	34.237	117.355	52.	9940	M	62.	28363.41	0.00
				9940	3	48.	44947.01	1.90
				9940	X	66.	56717.91	1.90
				9940	Y	78.	69192.73	1.00
				5990	Y	47.	37215.88	2.50
297	33.999	116.656	50.	9940	M	59.	28376.77	.40
				9940	3	46.	44939.51	1.90
				9940	X	60.	56801.75	1.00
				9940	Y	80.	68937.88	1.00
				5990	Y	46.	37208.71	2.50
298	33.856	116.413	50.	9940	3	46.	44940.56	1.90
				9940	X	59.	56803.86	1.00
				9940	Y	80.	68934.25	1.30
				5990	Y	46.	37209.40	2.90
299	33.749	116.261	50.	9940	M	57.	28420.00	0.00
				9940	3	45.	44968.16	1.90
				9940	X	60.	56871.09	1.60
				9940	Y	81.	68839.41	1.30
				5990	Y	45.	37237.26	3.20
300	33.697	115.971	50.	9940	M	59.	28420.65	-.30
				9940	3	48.	44956.63	2.20
				9940	X	58.	56898.55	1.00
				9940	Y	82.	68757.75	1.30
				5990	Y	48.	37225.55	3.20

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
301	42.033	71.030	65.	9960	M	64.	12395.75	1.00
				9960	3	60.	26736.51	1.30
				9960	X	80.	38165.50	1.60
				9960	Y	56.	56575.37	1.90
				5930	Z	60.	9800.32	1.60
				5930	X	81.	21584.50	1.60
				5930	Y	43.	41651.41	2.20
302	42.193	70.824	66.	9960	M	64.	12375.97	1.60
				9960	3	62.	26395.20	1.60
				9960	X	81.	38106.78	1.60
				9960	Y	56.	56591.03	2.20
				5930	Z	62.	9656.48	2.20
				5930	X	81.	21326.61	1.60
				5930	Y	44.	41507.81	2.20
303	42.301	70.689	67.	9960	M	66.	12363.53	2.20
				9960	3	63.	26298.13	1.90
				9960	X	82.	38077.12	2.20
				9960	Y	55.	56602.31	1.60
				5930	Z	63.	9559.33	2.20
				5930	X	83.	21296.93	2.20
				5930	Y	44.	41410.93	2.20
304	42.633	70.592	64.	9960	M	63.	12273.38	1.30
				9960	3	64.	26067.53	1.90
				9960	X	81.	38070.80	2.20
				9960	Y	55.	56609.95	1.60
				5930	Z	64.	9328.80	2.20
				5930	X	81.	21290.58	2.20
				5930	Y	44.	41226.58	2.50
305	42.776	70.616	65.	9960	M	64.	12220.50	1.60
				9960	3	64.	25977.36	2.20
				9960	X	80.	38079.87	2.20
				9960	Y	51.	56605.71	1.90
				5930	Z	64.	9238.53	1.90
				5930	X	80.	21299.65	2.20
				5930	Y	45.	41167.28	2.50
306	42.977	70.630	63.	9960	M	64.	12155.26	1.90
				9960	3	64.	25852.17	1.60
				9960	X	79.	38091.31	1.90
				9960	Y	51.	56602.73	2.20
				5930	Z	64.	9113.37	1.60
				5930	X	73.	21311.10	2.20
				5930	Y	44.	41081.90	2.50
307	43.349	70.586	62.	9960	M	62.	12064.70	1.00
				9960	3	62.	25613.94	1.60
				9960	X	77.	38110.39	1.90
				9960	Y	48.	56611.96	2.20
				5930	Z	52.	8675.15	1.90
				5930	X	77.	21330.20	2.20
				5930	Y	45.	40907.38	2.20

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dE uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dE uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
308	43.532	70.463	59.	9960	M	60.	12039.37	1.00
				9960	3	63.	25472.20	1.30
				9960	X	75.	38107.53	1.30
				9960	Y	47.	56622.60	1.90
				5930	M	62.	8733.56	1.60
				5930	X	75.	21327.36	1.60
				5930	Y	48.	40737.25	2.20
309	43.640	70.326	60.	9960	M	59.	12039.66	.70
				9960	3	64.	25377.04	1.30
				9960	X	76.	38099.31	2.20
				9960	Y	47.	56633.51	1.90
				5930	M	63.	8638.21	1.60
				5930	X	76.	21319.13	2.20
				5930	Y	48.	40695.76	2.20
310	43.916	69.991	58.	9960	M	57.	12038.66	.40
				9960	3	66.	25138.73	1.30
				9960	X	75.	38089.02	2.20
				9960	Y	48.	56662.00	1.60
				5930	M	65.	8599.90	1.60
				5930	X	75.	21308.83	2.20
				5930	Y	46.	40465.90	2.20
311	44.202	69.643	56.	9960	M	54.	12046.34	0.00
				9960	3	68.	24897.09	1.60
				9960	X	71.	38091.75	1.30
				9960	Y	47.	56695.67	1.60
				5930	M	68.	8158.26	1.60
				5930	X	71.	21311.55	1.30
				5930	Y	45.	40240.75	2.20
312	44.322	69.517	55.	9960	M	53.	12047.96	.30
				9960	3	69.	24799.35	1.60
				9960	X	70.	38096.94	1.30
				9960	Y	46.	56709.75	1.30
				5930	M	69.	8060.56	1.90
				5930	X	73.	21316.69	1.30
				5930	Y	45.	40151.01	2.20

KTH BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
313	45.018	68.802	56.	9960	M	50.	74946.72	1.30
				9960	3	74.	87129.26	2.20
				9960	X	66.	101628.76	1.30
				5930	M	74.	41072.65	2.20
				5930	X	66.	54936.73	1.60
				5930	Y	40.	73209.90	3.50
314	45.118	68.761	57.	9960	M	50.	74921.39	1.60
				9960	3	74.	87045.05	1.90
				9960	X	65.	101019.75	1.60
				5930	M	74.	40988.39	2.20
				5930	X	65.	54921.73	1.30
				5930	Y	40.	73144.28	3.80
315	45.316	68.666	56.	9960	M	49.	74900.39	1.90
				9960	3	76.	86898.88	1.90
				9960	X	65.	101026.91	1.30
				5930	M	75.	40842.25	2.20
				5930	X	65.	54928.91	1.00
				5930	Y	41.	73033.39	3.80
316	46.149	70.380	59.	9960	M	60.	73760.78	.70
				9960	3	77.	86090.33	1.90
				9960	X	58.	100411.70	.40
				5930	M	77.	40033.65	1.90
				5930	X	58.	54313.67	.40
				5930	Y	45.	72525.31	0.00
317	45.961	70.794	60.	9960	3	77.	86092.11	1.90
				9960	X	59.	100404.88	.40
				5930	M	77.	40035.43	2.20
				5930	X	59.	54306.78	.40
				5930	Y	45.	72526.75	.30
318	45.880	70.976	57.	9960	M	60.	73454.81	.30
				9960	3	74.	66147.18	1.60
				9960	X	58.	100206.77	.40
				5930	M	74.	40090.52	1.90
				5930	X	59.	54108.77	.30
				5930	Y	44.	72570.06	1.60

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
319	45.706	71.501	55.	9960	M	62.	73200.81	.70
				9960	3	69.	86196.35	1.60
				9960	X	56.	100067.05	-.30
				5930	W	69.	40139.63	1.60
				5930	X	57.	53969.05	-.60
				5930	Y	40.	72614.23	-1.20
320	45.570	72.053	55.	9960	M	63.	72955.12	1.00
				9960	3	69.	86244.75	1.60
				9960	X	56.	99958.76	-.30
				5930	W	68.	40188.05	1.90
				5930	X	57.	53860.77	-.60
				5930	Y	39.	72662.01	-1.50
321	45.512	72.268	55.	9960	M	64.	72855.36	1.00
				9960	3	67.	86264.35	1.60
				9960	X	56.	99918.08	-.30
				5930	W	67.	40207.65	1.60
				5930	X	56.	53820.06	-.60
				5930	Y	38.	72681.18	-1.50
322	45.493	72.340	54.	9960	M	64.	72823.88	.70
				9960	3	67.	86270.48	1.30
				9960	X	55.	99905.59	-.60
				5930	W	67.	40213.78	1.60
				5930	X	56.	53807.60	-.60
				5930	Y	39.	72687.17	-1.80
323	45.269	73.126	53.	9960	M	66.	72464.83	1.00
				9960	3	65.	86342.40	1.60
				9960	X	55.	99774.46	-.30
				5930	W	65.	40285.69	1.60
				5930	X	55.	53676.45	-.90
				5930	Y	37.	72756.20	-1.80
324	45.151	73.666	57.	9960	M	68.	72229.47	1.00
				9960	3	65.	86388.15	1.60
				9960	X	55.	99714.73	-.90
				5930	W	64.	40331.46	1.60
				5930	X	55.	53616.66	-.60
				5930	Y	36.	72803.31	-1.80

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN db/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH db/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
325	45.094	73.878	55.	9960	M	68	72136.87	.70
				9960	3	64.	86406.66	1.60
				9960	X	55.	99691.05	1.60
				5930	X	63.	40349.95	1.60
				5930	X	55.	53593.03	1.60
				5930	Y	36.	72821.23	-1.80
326	45.014	74.175	55.	9960	M	70.	71998.43	1.00
				9960	3	63.	86434.33	1.60
				9960	X	53.	99660.59	1.60
				5930	X	63.	40377.62	1.60
				5930	X	54.	53562.58	1.60
				5930	Y	35.	72848.83	-2.10
327	44.911	74.682	55.	9960	M	74.	71794.90	1.60
				9960	3	62.	86472.88	1.60
				9960	X	50.	99625.85	-1.50
				8970	X	49.	86664.02	1.00
				8970	X	74.	114839.31	1.60
				5930	X	62.	40416.67	1.90
				5930	X	50.	53527.39	-1.80
				5930	Y	33.	72888.67	-2.50
328	44.521	74.341	54.	9960	M	72.	71623.30	1.00
				9960	3	57.	86343.90	.70
				9960	X	51.	99346.14	-1.50
				9960	N	44.	131848.95	-1.60
				8970	X	43.	86569.03	1.30
				8970	X	72.	114667.69	1.00
				5930	X	56.	40287.28	.40
				5930	X	51.	53248.15	-1.80
329	44.336	74.220	53.	9960	M	71.	71555.76	.70
				9960	3	57.	86298.07	.40
				9960	X	51.	99226.02	-1.50
				9960	N	43.	131810.37	-1.90
				8970	X	42.	86530.38	1.30
				8970	X	71.	114600.26	.70
				5930	X	56.	40241.49	1.00
				5930	X	52.	53128.06	-1.50
330	44.183	74.239	51.	9960	M	72.	71462.65	1.00
				9960	3	55.	86306.13	.40
				9960	X	50.	99161.21	-1.80
				9960	N	44.	131730.75	-1.50
				8970	X	43.	86450.95	-1.60
				8970	X	72.	114506.98	1.00
				5930	X	55.	40249.48	.40
				5930	X	50.	53063.24	-2.50

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uv/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uv/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
331	43.822	74.568	54.	9960	M	77.	71224.70	1.60
				9960	3	49.	86339.85	0.00
				9960	X	51.	99033.84	-1.20
				9960	N	47.	131518.53	-.30
				8970	X	46.	86238.73	-.60
				8970	M	77.	114269.09	1.60
				5930	X	48.	40263.25	-1.20
				5930	X	52.	52935.85	-1.80
332	43.687	74.692	53.	9960	M	79.	71132.13	1.60
				9960	3	49.	86354.82	-.90
				9960	X	53.	98991.55	-.90
				9960	N	48.	131434.30	.40
				8970	X	47.	86151.48	-.30
				8970	M	79.	114176.56	-1.60
				5930	X	48.	40298.15	-1.50
				5930	X	53.	52893.56	-1.50
333	43.477	74.851	53.	9960	M	81.	70993.33	1.60
				9960	3	47.	86377.63	-.90
				9960	X	54.	98928.01	-1.20
				9960	N	50.	131307.25	.70
				8970	X	49.	86027.36	-.30
				8970	M	81.	114057.71	1.60
				5930	X	47.	40321.00	-1.50
				5930	X	54.	52830.00	-1.80

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DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
334	35.004	77.872	57.	9960	M	59.	47244.71	1.30
				9960	X	55.	74606.11	.40
				9960	Y	90.	86930.56	2.50
				7980	Z	66.	55337.35	2.90
				7980	Y	59.	100853.89	2.90
				7980	N	90.	114508.42	2.20
				8970	3	66.	31407.30	2.90
				8970	X	59.	48377.63	1.60
335	35.143	77.769	57.	9960	M	60.	47155.71	1.90
				9960	X	56.	74512.53	.70
				9960	Y	89.	86950.38	2.20
				7980	Z	66.	55356.72	2.90
				7980	Y	58.	100877.67	2.20
				7980	N	90.	114528.19	2.20
				8970	3	66.	31426.68	2.50
				8970	X	60.	48288.63	1.90
336	35.343	77.589	55.	9960	M	62.	47029.34	2.20
				9960	X	57.	74373.81	.70
				9960	Y	88.	86980.14	2.20
				7980	Z	65.	55390.72	2.90
				7980	Y	57.	100911.21	2.20
				7980	N	88.	114557.95	2.20
				8970	3	65.	31459.86	2.90
				8970	X	62.	48162.30	2.50
337	35.538	77.419	55.	9960	M	63.	46900.46	2.50
				9960	X	57.	74231.48	1.00
				9960	Y	86.	87013.18	2.20
				7980	Z	64.	55423.59	2.90
				7980	Y	57.	100945.31	1.90
				7980	N	86.	114591.00	2.20
				8970	3	64.	31493.53	2.90
				8970	X	63.	48033.38	2.20
338	35.679	77.326	55.	9960	M	63.	46811.33	2.20
				9960	X	58.	74141.02	.70
				9960	Y	85.	87037.95	2.20
				7980	Z	63.	55442.86	2.90
				7980	Y	57.	100969.98	1.90
				7980	N	86.	114615.76	2.20
				8970	3	63.	31512.23	2.90
				8970	X	63.	47946.93	2.20
339	35.822	77.223	55.	9960	M	62.	46722.23	2.20
				9960	X	58.	74044.62	.70
				9960	Y	84.	87063.42	2.20
				7980	Z	63.	55462.91	2.50
				7980	Y	56.	100995.21	2.50
				7980	N	84.	114641.22	2.50
				8970	3	63.	31522.86	2.90
				8970	X	63.	47855.21	2.20

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
340	36.037	77.073	53.	9960	M	64.	46592.06	2.20
				9960	X	59.	73911.44	.40
				9960	Y	83.	87100.43	2.20
				7980	M	62.	55492.31	2.20
				7980	Y	55.	101031.70	2.20
				7980	N	83.	114676.28	2.20
				8970	3	61.	31561.56	2.20
				8970	X	64.	47728.00	1.90
341	36.238	76.874	53.	9960	M	64.	46462.95	2.20
				9960	X	59.	73759.12	.40
				9960	Y	82.	87139.45	2.20
				7980	M	60.	55531.42	2.20
				7980	Y	54.	101068.70	1.90
				7980	N	82.	114717.28	2.20
				8970	3	60.	31600.61	2.20
				8970	X	64.	47598.13	2.20
342	36.350	76.743	54.	9960	M	65.	46391.46	2.20
				9960	X	60.	73672.15	1.00
				9960	Y	81.	87161.32	2.20
				7980	M	59.	55555.86	2.20
				7980	Y	54.	101088.78	2.20
				7980	N	81.	114739.14	2.20
				8970	3	59.	31625.80	1.90
				8970	X	65.	47524.39	2.20
343	36.487	76.600	54.	9960	M	65.	46304.73	2.20
				9960	X	60.	73568.53	.70
				9960	Y	80.	87189.01	2.50
				7980	M	58.	55584.48	1.60
				7980	Y	54.	101114.38	2.20
				7980	N	80.	114766.85	2.20
				8970	3	58.	31654.44	1.60
				8970	X	65.	47437.63	2.20
344	36.704	76.386	55.	9960	M	66.	46169.60	2.20
				9960	X	62.	73405.40	.70
				9960	Y	79.	87233.63	2.20
				7980	M	56.	55627.81	1.00
				7980	Y	53.	101155.75	1.30
				7980	N	79.	114811.46	2.20
				8970	3	56.	31697.72	1.30
				8970	X	66.	47302.56	1.90
345	36.913	76.188	54.	9960	M	66.	46041.96	1.60
				9960	X	63.	73259.00	.70
				9960	Y	78.	87276.68	2.20
				7980	M	56.	55566.56	1.90
				7980	Y	52.	101195.75	2.20
				7980	N	78.	114854.53	2.20
				8970	3	56.	31738.53	1.30
				8970	X	66.	47174.83	1.90

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL N usecs	ECD IN usecs
346	37.071	76.092	54.	9960	M	67.	45951.42	1.90
				9960	X	63.	73163.06	.70
				9960	Y	78.	87305.34	2.20
				7980	M	57.	55689.76	1.60
				7980	Y	52.	101224.03	2.20
				7980	Z	78.	114883.16	2.20
				8970	3	57.	31759.72	1.60
				8970	X	67.	47084.36	2.20
347	37.235	76.008	55.	9960	M	68.	45855.90	2.20
				9960	X	64.	73065.40	1.00
				9960	Y	78.	87334.85	2.20
				7980	M	57.	55709.88	1.60
				7980	Y	52.	101253.56	2.20
				7980	Z	78.	114912.64	2.50
				8970	3	56.	31779.81	1.60
				8970	X	68.	46988.86	2.20
348	37.475	75.892	56.	9960	M	69.	45720.17	2.20
				9960	X	64.	72926.64	1.00
				9960	Y	76.	87377.16	2.20
				7980	M	56.	55739.10	1.90
				7980	Y	51.	101296.15	1.60
				7980	Z	76.	114954.95	2.20
				8970	3	56.	31809.03	1.60
				8970	X	69.	46853.11	2.20
349	37.700	75.714	56.	9960	M	69.	45594.50	2.20
				9960	X	65.	72783.35	1.00
				9960	Y	76.	87420.98	2.20
				7980	M	56.	55776.46	1.60
				7980	Y	51.	101338.40	1.00
				7980	Z	76.	114998.76	2.20
				8970	3	55.	31846.42	1.90
				8970	X	69.	46727.48	2.20
350	37.831	75.613	57.	9960	M	69.	45521.99	2.20
				9960	X	65.	72699.78	1.00
				9960	Y	75.	87446.93	2.20
				7980	Y	50.	21563.40	1.60
				7980	N	75.	35224.70	2.20
				8970	X	69.	46654.89	1.90
351	38.004	75.553	55.	9960	M	68.	45422.17	1.90
				9960	X	65.	72604.11	1.00
				9960	Y	74.	87474.35	2.20
				9960	N	52.	104318.06	1.00
				7980	Y	49.	21591.38	1.30
				7980	N	74.	35252.19	2.20
				8970	M	52.	17126.87	1.00
				8970	X	68.	46555.15	1.90

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uv/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uv/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
352	38.231	75.381	55.	9960	M	69.	45297.21	1.90
				9960	X	66.	72459.63	1.00
				9960	Y	74.	87520.33	2.20
				9960	N	52.	104293.68	1.00
				7980	Y	49.	21636.41	1.60
				7980	N	74.	35298.12	2.20
				8970	M	52.	17102.28	.70
				8970	X	69.	46430.08	1.90
353	38.493	75.214	55.	9960	M	70.	45157.46	1.90
				9960	X	67.	72304.38	1.00
				9960	Y	72.	87571.31	2.20
				9960	N	52.	104262.02	.40
				7980	Y	48.	21686.91	1.00
				7980	N	73.	35349.07	2.20
				8970	M	52.	17070.48	1.30
				8970	X	70.	46290.38	1.90
354	38.658	75.114	58.	9960	M	71.	45073.09	2.20
				9960	X	68.	72211.54	1.00
				9960	Y	72.	87602.59	2.20
				9960	N	53.	104243.18	1.00
				7980	Y	48.	21717.88	1.00
				7980	N	73.	35380.38	2.50
				8970	M	53.	17051.70	1.00
				8970	X	71.	46206.04	2.20
355	38.908	74.946	58.	9960	M	72.	44947.08	2.20
				9960	X	69.	72065.00	1.00
				9960	Y	72.	87656.10	2.50
				9960	N	54.	104222.13	1.60
				7980	Y	48.	21770.82	.70
				7980	N	73.	35433.85	2.50
				8970	M	54.	17030.69	1.90
				8970	X	72.	46079.98	2.20
356	39.064	74.850	58.	9960	M	72.	44867.68	2.20
				9960	X	69.	71975.09	1.30
				9960	Y	72.	87684.88	2.20
				9960	N	54.	104204.86	1.60
				7980	Y	47.	21799.27	.40
				7980	N	72.	35462.63	2.20
				8970	M	54.	17013.41	1.00
				8970	X	72.	46000.61	2.20
357	39.344	74.669	60.	9960	M	73.	44715.21	2.50
				9960	X	69.	71797.64	1.30
				9960	Y	72.	87722.81	2.50
				9960	N	53.	104165.56	1.30
				7980	Y	46.	21836.76	.70
				7980	N	71.	35500.56	2.50
				8970	M	52.	16974.06	1.00
				8970	X	73.	45848.17	2.20

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m
358	39.495	74.664	61.

GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
9960	M	71.	44607.78	3.20
9960	X	68.	71716.78	1.30
9960	Y	67.	87724.76	2.20
9960	Z	49.	104105.51	1.90
7980	Y	47.	21851.50	1.30
7980	Z	67.	35502.85	2.50
8970	M	50.	16913.90	1.30
8970	X	71.	45740.72	3.20

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN db/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH db/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
359	40.662	73.354	60.	9960	M	74.	12756.64	3.80
				9960	3	46.	28047.86	-.30
				9960	X	73.	39491.45	1.30
				9960	Y	62.	56544.12	2.20
				8970	M	49.	18010.80	1.90
				8970	X	73.	46381.45	3.50
				5930	M	46.	11310.04	0.00
				5930	X	73.	22712.67	1.30
360	40.674	73.258	62.	9960	M	74.	12732.42	3.20
				9960	3	46.	27973.08	-.30
				9960	X	73.	39401.68	1.00
				9960	Y	63.	56515.68	2.20
				8970	M	49.	17997.42	1.90
				8970	X	74.	46357.01	2.90
				5930	M	45.	11235.34	-.30
				5930	X	73.	22623.00	1.30
361	40.718	73.029	62.	9960	M	73.	12702.19	2.50
				9960	3	45.	27957.86	1.60
				9960	X	74.	39265.94	1.60
				9960	Y	63.	56482.98	1.90
				8970	M	49.	17959.43	1.60
				8970	X	73.	46326.78	2.50
				5930	M	45.	11118.98	1.60
				5930	X	73.	22485.81	1.60
362	40.789	72.777	63.	9960	M	71.	12673.35	2.50
				9960	3	46.	27728.96	1.90
				9960	X	75.	39120.02	1.30
				9960	Y	63.	56478.83	2.50
				8970	M	47.	17988.79	1.60
				8970	X	71.	46297.97	2.50
				5930	M	46.	10990.03	1.30
				5930	X	76.	22339.80	1.60
363	40.842	72.583	61.	9960	M	70.	12662.58	1.90
				9960	3	48.	27639.65	-1.20
				9960	X	77.	39016.22	1.60
				9960	Y	63.	56478.92	2.50
				8970	M	46.	17997.45	1.60
				8970	X	70.	46287.15	2.20
				5930	M	47.	10900.73	1.30
				5930	X	77.	22236.02	1.90
364	40.899	72.337	61.	9960	M	71.	12652.56	2.20
				9960	3	49.	27548.14	-1.20
				9960	X	78.	38910.86	1.60
				9960	Y	63.	56481.40	1.90
				8970	M	45.	18006.92	1.60
				8970	X	71.	46277.16	2.20
				5930	M	49.	10869.30	1.30
				5930	X	76.	22130.66	1.60

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
365	41.007	72.113	61.	9960	M	70.	12632.73	1.90
				9960	3	52.	27409.35	1.60
				9960	X	79.	38759.42	1.60
				9960	Y	62.	56489.53	1.90
				8970	Z	45.	18015.41	1.00
				8970	X	70.	46257.31	1.90
				5930	E	52.	10670.53	0.00
				5930	X	79.	21979.17	1.90
366	41.081	71.932	64.	9960	M	69.	12620.56	2.20
				9960	3	53.	27317.80	.70
				9960	X	80.	38661.03	1.60
				9960	Y	61.	56496.39	1.60
				5930	E	53.	10579.05	1.00
				5930	X	80.	21880.86	1.90
367	41.270	71.791	66.	9960	M	66.	12562.44	1.60
				9960	3	53.	27171.02	1.00
				9960	X	81.	38548.75	1.90
				9960	Y	61.	56508.95	1.90
				5930	E	53.	10432.25	1.60
				5930	X	82.	21768.60	2.20
				5930	Y	45.	42255.13	2.90

UNIT BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF USECS	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB uV/m	TIME OF ARRIVAL IN USECS	ECD IN USECS
368	41.200	81.470	68.	9960	M	74.	16488.05	3.80
				9960	Y	55.	60153.76	1.30
				9960	Z	69.	74017.93	1.90
				8970	X	68.	36099.13	2.20
				8970	Y	74.	66893.58	3.80
				8970		47.	26483.89	1.00
369	41.136	80.952	61.	9960	M	74.	16281.72	3.80
				9960	Y	56.	59988.50	1.90
				9960	Z	68.	74063.11	2.50
				8970	X	67.	36144.33	2.90
				8970	Y	74.	66687.17	3.50
				8970		45.	86517.65	1.00
370	41.147	80.404	57.	9960	M	74.	16056.91	3.80
				9960	Y	55.	59855.00	1.60
				9960	Z	66.	74125.58	2.20
				8970	X	66.	36206.81	2.20
				8970	Y	74.	66462.40	3.80
				8970		44.	86539.60	1.30
371	41.155	79.851	57.	9960	M	75.	15837.05	3.50
				9960	X	48.	44554.59	1.60
				9960	Y	56.	59729.77	1.30
				9960	Z	65.	74189.34	2.20
				8970	X	65.	36270.53	2.20
				8970	Y	75.	66242.53	3.50
				8970		43.	86565.01	1.30
372	41.028	79.459	55.	9960	M	77.	15687.75	4.10
				9960	X	50.	44357.17	.70
				9960	Y	56.	59575.10	1.60
				9960	Z	63.	74204.87	1.90
				8970	X	63.	36286.10	1.90
				8970	Y	77.	66093.28	4.10
				8970		41.	86590.65	1.60
373	40.646	79.426	61.	9960	M	76.	15691.41	3.50
				9960	X	51.	44274.38	.70
				9960	Y	57.	59345.78	1.60
				9960	Z	64.	74109.23	2.50
				8970	X	64.	36190.41	2.90
				8970		76.	66096.94	3.50

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
374	38.852	81.060	63.	9960	M	67.	15793.78	2.50
				9960	Y	60.	58162.85	1.30
				9960	Z	67.	72983.17	1.30
				7980	Z	60.	117035.40	-1.90
				8970	Z	67.	35064.41	1.90
				8970	X	67.	66199.31	2.90
375	38.821	81.443	56.	9960	M	67.	15785.30	2.50
				9960	Y	60.	58120.72	.70
				9960	Z	68.	72980.40	1.90
				7980	Z	60.	116993.16	.70
				8970	Z	68.	34871.67	2.20
				8970	X	67.	66190.80	2.50
376	38.791	81.816	57.	9960	M	67.	15777.28	3.20
				9960	X	47.	44216.24	.40
				9960	Y	60.	58082.96	1.00
				9960	Z	69.	72597.75	1.60
				7980	N	47.	56374.35	-1.80
				7980	Z	60.	116955.40	.70
				8970	Z	69.	34678.97	1.90
				8970	X	67.	66182.87	3.20
377	38.761	82.178	53.	9960	M	67.	15769.00	3.20
				9960	X	47.	44231.16	-.90
				9960	Y	60.	58048.27	.70
				9960	Z	70.	72413.15	1.60
				7980	N	48.	56242.18	-2.10
				7980	Z	60.	116920.73	.70
				8970	Z	70.	34494.39	1.90
				8970	X	67.	66174.55	3.20
378	38.718	82.551	54.	9960	M	67.	15769.26	3.20
				9960	Y	58.	58015.61	.40
				9960	Z	70.	72227.03	1.60
				7980	N	50.	56105.73	-2.10
				7980	Z	58.	116888.06	.70
				8970	N	70.	34308.31	1.90
				8970	Z	49.	50153.69	-1.60
				8970	X	67.	66174.79	3.20
379	38.674	82.943	53.	9960	M	66.	15775.25	2.90
				9960	Y	57.	57991.50	.40
				9960	Z	71.	72038.08	1.60
				7980	N	50.	55973.36	-1.50
				7980	Z	57.	116963.95	.40
				8970	N	71.	34119.30	1.60
				8970	Z	50.	50021.41	-1.90
				8970	X	65.	66180.77	2.90

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH db/uv/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
380	38.665	83.345	56.	9960	M	64.	15777.17	2.50
				9960	Y	56.	57982.20	.40
				9960	N	73.	71840.88	1.60
				7980	Z	51.	55854.70	-1.50
				7980	N	56.	116854.65	0.00
				8970	Z	72.	33922.11	1.90
				8970	3	51.	49902.75	1.90
				8970	X	64.	66182.75	2.50
381	38.666	83.756	56.	9960	M	64.	15781.03	3.20
				9960	Y	56.	57982.05	1.30
				9960	N	74.	71642.26	1.60
				7980	Z	55.	55745.31	1.30
				7980	N	56.	116854.45	1.30
				8970	Z	74.	33723.51	1.90
				8970	3	55.	49793.30	.40
				8970	X	64.	66186.55	3.20
382	38.664	94.208	64.	9960	M	63.	15795.69	2.90
				9960	Y	56.	57992.77	0.00
				9960	N	76.	71436.91	1.90
				7980	Z	56.	55640.28	.70
				7980	N	56.	116865.35	.40
				8970	Z	75.	33518.19	2.20
				8970	3	56.	49688.24	1.00
				8970	X	63.	66201.26	3.20
383	38.651	84.664	57.	9960	M	63.	15816.52	2.90
				9960	Y	55.	58005.80	.40
				9960	N	77.	71233.97	2.20
				7980	Z	57.	55537.31	1.90
				7980	N	55.	116878.23	.40
				8970	Z	77.	33315.20	2.50
				8970	3	58.	49585.23	1.90
				8970	X	63.	66222.04	3.20
384	38.631	85.133	55.	9960	M	62.	15843.36	2.90
				9960	Y	54.	58022.70	.40
				9960	N	78.	71036.42	1.90
				7980	Z	59.	55438.89	1.60
				7980	N	54.	116895.08	.40
				8970	Z	78.	33117.70	2.20
				8970	3	58.	49486.89	2.20
				8970	X	62.	66248.90	2.90
385	38.601	85.602	60.	9960	M	61.	15874.90	2.50
				9960	Y	53.	58041.46	1.30
				9960	N	80.	70846.15	2.20
				7980	Z	53.	55342.95	2.20
				7980	N	53.	116913.80	1.30
				8970	Z	79.	32927.39	2.20
				8970	3	58.	49390.82	1.60
				8970	X	61.	66280.44	2.50

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
336	38.581	86.088	57.	9960	M	60.	15906.25	2.50
				9960	Y	52.	58065.72	0.00
				9960	Z	81.	70661.92	1.90
				7980	M	58.	55255.66	0.00
				7980	Z	52.	116938.21	0.00
				8970	W	80.	32743.18	1.90
				8970	X	58.	43303.58	1.90
				8970		60.	66311.84	2.50
387	38.490	88.049	61.	9960	M	58.	16065.53	2.90
				9960	Y	51.	58207.80	-1.30
				9960	Z	84.	70224.47	2.20
				7980	M	60.	55000.40	1.90
				7980	W	61.	67899.13	2.20
				8970	Z	83.	32305.71	2.20
				8970	W	60.	49048.39	1.90
				8970	X	58.	66471.05	2.90
338	38.477	88.129	60.	9960	M	58.	16074.01	2.90
				9960	Y	51.	58212.58	-1.30
				9960	Z	84.	70221.64	1.90
				7980	M	60.	54988.60	2.20
				7980	W	62.	67872.28	2.50
				8970	Z	83.	32302.85	2.20
				8970	W	60.	49036.53	1.90
				8970	X	58.	66479.53	3.20

DATA BASE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN dB/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH dB/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
389	36.434	88.072	56.	9960	M	53.	22136.41	2.20
				9960	Y	50.	63594.81	0.00
				9960	N	73.	76598.58	1.90
				7980	W	64.	9157.45	1.60
				7980	M	65.	22008.96	2.20
				8970	W	73.	26684.08	1.90
				8970	M	64.	42173.86	1.60
				8970	X	53.	60746.19	2.50
390	36.324	87.543	57.	9960	M	54.	21962.98	1.90
				9960	Y	51.	63354.63	1.30
				9960	N	73.	76538.43	1.90
				7980	W	65.	8970.40	1.90
				7980	M	67.	21969.06	2.50
				8970	W	73.	26623.95	1.90
				8970	M	65.	41986.82	1.90
				8970	X	55.	60572.88	1.90
391	36.234	87.074	59.	9960	M	55.	21764.60	2.90
				9960	Y	53.	63091.86	1.60
				9960	N	73.	76472.76	2.20
				7980	W	66.	8784.05	1.90
				7980	M	64.	21912.56	1.60
				7980	N	53.	71200.09	1.30
				8970	W	73.	26758.25	2.20
				8970	M	66.	41800.46	1.90
392	36.114	86.581	57.	9960	M	55.	21594.32	2.20
				9960	Y	53.	62844.83	1.30
				9960	N	73.	76441.73	1.90
				7980	W	67.	8607.47	1.90
				7980	M	66.	21858.81	2.20
				7980	N	53.	70950.03	1.30
				8970	W	72.	26726.93	2.20
				8970	M	67.	41621.86	1.90
393	36.010	86.057	58.	9960	M	55.	21414.59	2.20
				9960	Y	54.	62596.61	1.90
				9960	N	72.	76419.53	1.90
				7980	W	66.	8443.53	1.60
				7980	M	65.	21826.23	2.20
				7980	N	54.	70694.88	1.90
				8970	W	71.	26705.00	1.90
				8970	M	66.	41459.94	1.60
394	35.904	85.518	57.	9960	M	53.	21236.00	2.20
				9960	Y	55.	62321.69	1.90
				9960	N	69.	76413.19	1.30
				7980	W	66.	8289.97	1.30
				7980	M	64.	21805.67	2.20
				7980	N	55.	70429.96	-1.20
				8970	W	69.	26696.66	1.60
				8970	M	66.	41306.37	1.90

CHAIN RATE POINT	REFERENCE LATITUDE IN DEGREES	REFERENCE LONGITUDE IN DEGREES	ATMOSPHERIC NOISE IN db/uV/m	GRI IN TENS OF usecs	MASTER SECONDARY IDENTIFIER	FIELD STRENGTH db/uV/m	TIME OF ARRIVAL IN usecs	ECD IN usecs
395	35.778	84.935	58.	9960	M	53.	21073.39	2.20
				9960	Y	57.	62062.58	1.90
				9960	N	63.	76423.45	1.60
				7980	Z	67.	8146.09	1.60
				7980	W	61.	21787.78	1.60
				7980	N	56.	70170.82	1.90
				8970	Z	68.	26708.91	1.90
				8970	W	67.	41162.47	1.60
396	35.869	84.437	57.	9960	M	51.	20847.76	1.90
				9960	Y	53.	61813.30	1.30
				9960	N	66.	76379.88	1.30
				7980	Z	65.	8095.93	1.90
				7980	W	59.	21837.41	2.20
				7980	N	58.	69921.60	1.30
				8970	Z	66.	26665.30	1.60
				8970	W	65.	41112.35	1.90
397	35.998	83.548	54.	9960	M	48.	20621.41	1.30
				9960	Y	61.	61596.03	0.00
				9960	N	66.	76321.44	1.90
				7980	Z	62.	8080.35	0.00
				7980	W	59.	21891.12	1.60
				7980	N	60.	69704.30	0.00
				8970	Z	66.	26607.56	1.90
				8970	W	61.	41094.25	1.30
398	35.859	83.470	53.	9960	M	48.	20485.09	.40
				9960	Y	61.	61347.68	0.00
				9960	N	64.	76354.90	1.60
				7980	Z	54.	21873.06	1.60
				7980	W	61.	69455.96	0.00
				7980	N	64.	26640.39	2.20
				8970	Z	58.	40984.03	1.90
399	35.718	82.545	55.	9960	M	48.	20348.96	1.30
				9960	Y	65.	61089.68	1.30
				9960	N	63.	76399.76	1.60
				7980	Z	59.	7876.93	1.60
				7980	W	51.	21874.62	1.60
				7980	N	65.	69197.98	1.00
				8970	Z	63.	26685.22	1.90
				8970	W	59.	40893.33	.70
400	35.551	82.453	51.	9960	M	45.	20230.00	1.30
				9960	Y	68.	60932.93	1.60
				9960	N	60.	76450.35	1.00
				7980	Z	62.	7788.70	1.30
				7980	W	46.	21870.85	1.30
				7980	N	68.	68941.21	1.60
				8970	Z	60.	26735.81	1.00
				8970	W	62.	40805.11	1.30